

# KANSAS FARMER

ESTABLISHED IN 1863.  
VOL. XXXIII. NO. 4.

TOPEKA, KANSAS, WEDNESDAY, JANUARY 23, 1895.

SIXTEEN TO TWENTY  
PAGES--\$1.00 A YEAR.

## TABLE OF CONTENTS.

PAGE 50—THE STOCK INTEREST.—Sheep Husbandry in Kansas. A Big Purchase of Herefords. Some Good Horses. Anti-Toxine. Frozen Cabbage Fatal to Hogs.  
PAGE 51—AGRICULTURAL MATTERS.—Deep Plowing—Fodder for Feed. Subsoiling a Success. How He Subsoiled. How Shall He Plant His Small Grain? How to Raise Kafir Corn. What Next? Inquiries About Silos and Ensilage. Farmers' Institutes.  
PAGE 52—IRRIGATION.—Fruit and Vegetable Growing Under Irrigation. Experimentation Needed.  
PAGE 53—Chicago Live Stock Market Review. Publishers' Paragraphs.  
PAGE 54—THE HOME CIRCLE.—The Shell (poem). Life's Contrasts (poem). How to Shoot Well. Household Notes. Girlhood's Charm in Woman. Electric Tea Kettle. Good Milk Dinner.  
PAGE 55—THE YOUNG FOLKS.—A Rural Luncheon (poem). Glass Swallowers. Cat Goes to Church. Involuntary Trip to Europe. The Difference (poem). The Sea Elephant. The Teeth of a Rat.  
PAGE 56—EDITORIAL.—State Board of Agriculture. A Proposed Hog Feed. Gardener's Game Bill.  
PAGE 57—EDITORIAL.—Course of Lectures to Farmers. Government Crop Report for 1894—Final Estimates. American Berkshire Association. Fair Announcements. Money in Early Vegetables.  
PAGE 58—HORTICULTURE.—The Strawberry—Growing and Marketing.  
PAGE 59—IN THE DAIRY.—They Feel for the Poor Man. Protection Against Flies. The Chicago Produce Exchange Endorses the Anti-Oleo Decision.  
PAGE 60—Gossip About Stock.  
PAGE 61—THE VETERINARIAN.—Market Reports.  
PAGE 62—THE POULTRY YARD.—The North Kansas Poultry Show.

## BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$5.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

### HORSES.

**JOSEPH FUHRMAN, NORTH WICHITA, KAS.**—Breeder of French Coach and Percheron horses. Pure-bred young stock, of both sexes, for sale; also, grade animals. Prices as low as same quality of stock can be had elsewhere. Time given if desired. Inspection invited. Letters promptly answered. Mention this paper.

**PROSPECT FARM—CLYDESDALE STALLIONS, SHORT-HORN CATTLE, POLAND-CHINA HOGS.** Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kas.

### CATTLE.

**VALLEY GROVE HERD OF SHORT-HORNS.**—For sale, choice young bulls and heifers at reasonable prices. Call on or address Thos. F. Babst, Dover, Kas.

**NEOSHO VALLEY HERD OF SHORT-HORNS.**—Imported Buccaneer at head. Registered bulls, heifers and cows at bed-rock prices. D. P. Norton, Council Grove, Kas.

**ENGLISH RED POLLED CATTLE AND COTSWOLD SHEEP.**—Young stock for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo.

### SWINE.

**MAPLE GROVE HERD OF FANCY BRED POLAND-CHINA SWINE.** Also Light Brahma fowls. Owned by Wm. Plummer & Co., Osage City, Kas. Stock of all ages for sale at reasonable rates.

**FOR SALE CHEAP.**—Choice Poland-China boar pigs, Cotswold and Merino bucks, fifteen varieties of pure bred poultry. Prize-winners. No catalogue. Address with stamp, H. H. Hague & Son, Walton, Kas.

**OHIO IMPROVED CHESTER SWINE.**—Pure-bred and registered. Stock of all ages and both sexes for sale by H. S. Day, Dwight, Morris Co., Kas.

**D. TROTT, Abilene, Kas.**—Pedigreed Poland-Chinas and Duroc-Jerseys. Also M. B. Turkeys, Light Brahma, Plymouth Rock, S. Wyandotte chickens and R. Pekin ducks. Eggs. Of the best. Cheap.

**A. W. THEMANNSON, WATHENA, KAS.**—Poland-China boars. Glits bred to Graceful F. Sanders; he is by J. H. Sanders 27219 and out of Graceful F. 63408, by A. A., by Black U. S. sire and dam both first-prize winners at World's Fair and descendants of Black U. S.

### SWINE.

**DIETRICH & GENTRY, RICHMOND, KAS.** (formerly Ottawa) have several fine, growthy young boars at very reasonable prices. Young sows can be bred to High Ideal 12115 S. A fine crop of fall pigs very cheap. Write. Mention KANSAS FARMER.

**TOPEKA HERD OF BERKSHIRES.**—Strong-framed, mellow and prolific. State fair prize-winners and their produce for sale. Also, Pekin ducks of enormous size. H. B. COWLES, Topeka, Kas.

**V. B. HOWEY, Box 108, Topeka, Kas.** breeder and shipper of thoroughbred Poland-China and English Berkshire swine and Silver-Laced Wyandotte chickens.

**BLACK U. S. AND WILKES HERD OF POLAND-CHINAS.** Nemo U. S. heads the herd, out of Lizer's Nemo 24471, the \$275 son sired by A. A. 2d 18851, and assisted by Regu ator Wilkes 11591. Have sows in herd bred to Woodburn Medium, the \$1,000 boar, and Ideal U. S., the son of Ideal Black U. S., that sold for \$1,000 last September at Iowa State fair. Booking orders for pigs sired by these boars. Write what you want. Letters promptly answered. C. C. Keyt, Verdon, Richardson Co., Neb.

### CATTLE AND SWINE.

**PEDIGREED Poland-Chinas, Short-horns.** J. H. TAYLOR, Pearl, Kas.

**ASHLAND STOCK FARM HERD OF THOROUGH-BRED POLAND-CHINA HOGS, Short-horn cattle and Plymouth Rock chickens.** Boars in service, Admiral Chip No. 7919 and Abbottsford No. 23361, full brother to second-prize yearling at World's Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscatoh, Atchison Co., Kas.

### POULTRY.

**A. B. DILLE & SONS, EDGERTON, KAS.** breeders of choice B. P. Rocks, S. L. Wyandottes, Light Brahmas and M. B. turkeys. Chicken eggs \$1 to \$2 per 15; turkey eggs \$3 per 11. Satisfaction guaranteed.

**EUREKA POULTRY YARDS.**—L. E. Pixley, Emporia, Kas., breeder of Plymouth Rocks, S. Wyandottes, Buff Cochins, B. and White Leghorns, B. Langshans, M. B. Turkeys and Pekin ducks. Chickens at all times. Eggs in season.

### SWINE.

**Thoroughbred Duroc-Jersey Hogs**

Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. STONERAKER, Panoia, Ill.

### BERKSHIRES.

We offer choice selections from our grand herd, headed by a great imported boar. New blood for Kansas breeders.

**WM. B. SUTTON & SON, Russell, Kansas.**

**S. McCULLOUGH, Ottawa, Kansas.** Breeder of Pure-bred BERKSHIRE SWINE. Stock for sale at all times. Satisfaction guaranteed. Write for what you want.

### SELECT HERD OF BERKSHIRES.

Have for sale pigs from State fair winners. Can fill classes for show. Boars for fall service. A few choice sows bred. Address **G. W. BERRY, Berryton, Shawnee Co., Kas.**

**T. A. HUBBARD, Rome, Kansas.** Breeder of POLAND-CHINAS and LARGE ENGLISH BERKSHIRES. Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

### THE WOOD DALE BERKSHIRES

Champions of Two World's Fairs. New Orleans, 1885, best herd, largest hog any breed. At Columbian, Chicago, won ten out of eighteen first prizes, the other eight being bred at or by descendants of Wood Dale. New blood by an 1894 importation of 21 head from England. For catalogue Address **N. H. GENTRY, SEDALIA, MO.**

**GEORGE TOPPING, Cedar Point, Kas. (CHASE CO.)** Importer, breeder and shipper of **LARGE ENGLISH BERKSHIRE SWINE**

of best families and breeding. Choice pigs for sale at low prices. Also Single-combed Brown Leghorns and Mammoth Bronze turkeys. Eggs in season. Farm 6 miles south of Cedar Point. Mention K. F.

### BOURBON COUNTY HERD, English o Berkshire o Swine.

**J. S. MAGERS, Prop., Arcadia, Kas.** Imported and prize-winning American sows headed by Imp. Western Prince 32-02. All selected and bred to head herds and to supply those wanting none but the best. Fall litters now can't be beat. Write or come visit me and see the herd.

### SWINE.

**JAMES QUORLO, KEARNEY, MO.**

Breeder and shipper of prize-winning **Large Berkshire Swine.** S. C. Brown Leghorns and Bronze Turkeys. Headed by King Lee II. 29801, Mephistopheles 32412.

**MARTIN MEISENHEIMER, Hiawatha, Brown Co., Kas.** Registered Poland-China Swine.

20 brood sows, headed by Tecumseh Free Trade 10783 S., assisted by a son of Benton's Last 8337 S. Some of best females bred to Butler's Darkness, Black U. S. Nemo (Vol. 9) and Victor M. Jr. (Vol. 9) Correspondence and inspection invited.

**JOHN KEMP, North Topeka, Kas.,** breeder of improved Chester White Swine. Some fine young boars fit for service for sale. Correspondence invited.

### MAINS' HERD OF POLAND-CHINAS.

**JAS. MAINS, Oskaloosa, Kas. (Jefferson County.)** A grand lot of sows bred to Monroe's Model, Excel, McWilkes Jr. and Storm Cloud 2d. Also all other classes and ages of stock for sale. I guarantee safe arrival and stock as represented or money refunded. Breeding stock recorded in Ohio P. C. R.

**BERKSHIRE, Chester White, Jersey Red and Poland China PIGS.** Jersey, Guernsey and Holstein Cattle. Thoroughbred Sheep. Fanny Poultry. Hunting and House Dogs. Catalogue. **S. W. SMITH, Cochranville, Chester Co., Penna.**

### D. W. EVANS' HERD REGISTERED POLAND-CHINAS.

**FAIRVIEW, BROWN CO., KAS.** 250 head headed by Swi Tecumseh 11929 S., by Ls Tecumseh 11413 S., and Billy Wilkes 98-9 S., by George Wilkes 5850 S. A public clearance sale on Thursday, February 14, 1895, of 75 sows bred to these and other noted boars. Inspection invited.

**A. E. STALEY, Ottawa, Kansas.** CHESTER WHITES AND POLAND-CHINAS. Light Brahma cockerels, \$1.50.

### PLEASANT VIEW STOCK FARM.

**J. A. WORLEY, Sabetha, Brown Co., Kas.** REGISTERED POLAND-CHINA SWINE. Short-horn Cattle and Light Brahmas. 100 P. ands, headed by Anxiety 20251 A. Combination U. S. (Vol. 9), America's Equal 12279 S. and a son of Bolivar 24707. Eggs in season, \$1.50 per setting of 15. Inspection and correspondence invited.

**W. S. ATTEBURY, Rossville, Kansas.** BREEDER OF **Chester Whites** Exclusively. Young stock at all times. Satisfaction guaranteed.

### BLACK U. S. AND WILKES

300 head, registered or eligible. Boars in service, Modest Duke 12653 S., Wilk's Tecumseh 11760 A., White Face 12811 O. and Osgood Dandy Wilkes 12769 S. 60 young boars; 80 glits. **J. R. CAW-BELL & SON, Avilla, Jasper Co., Mo.**

### PRAIRIE COTTAGE FARM

Home of the Chester White Hogs. **C. J. HUGGINS, Louisville and Wamego, Kansas.**

Have for sale brood sows, two boars, also a nice lot of spring pigs of both sexes, the get of my herd boars, Ben Buster 6189 and Jerry Simpson 6161. Correspondence and inspection invited. Prices reasonable.

### HOLSTEIN-FRIESIANS

Careme 2d's Jacob Prince of Trisk 404 heads herd, backed with better record of over 35 lbs. in 7 days. Young bulls for sale. Red pigs in pairs, heavy bone, good color, dams often farrowing 14 pigs. Males ready for service. Poland-China males ready for use. Pigs of all ages in pairs not related. Young glits, either bred, bred if desired. Pigs shipped at my risk. Pedigrees furnished. M. H. ALBERTY, Cherokee, Crawford Co., Kas. Mention FARMER.

### AND POLAND-CHINAS.

### ELM BEACH STOCK FARM

**IRWIN & DUNCAN, Wichita, - Kansas, Sedgwick Co.** Breed and have for sale Bates and Bates-topped Short-horns, Waterloos, Kirklevingtons, etc. Also have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

### CATTLE.

### SUNNY SLOPE FARM,

**C. S. CROSS, Proprietor, Emporia, Kas.**

Breeder of **PURE-BRED HEREFORD CATTLE.** Herd headed by Wild Tom 5152, a son of Bean Real 11065 and assisted by sons of Cherry Boy 26475, Archibald 1st 59258 and Washington 22815. 200 head, all agra. in herd. Strong in the blood of Lord Wilton, Anxiety and Horace. A choice lot of young heifers, fit for any company. Bulls all sold. Correspondence solicited, or, better still, a personal inspection invited.

### SHANNON HILL STOCK FARM.

**G. W. GLICK, ATCHISON, KAS.**

Breeds and has for sale Bates and Bates-topped **SHORT-HORNS.** Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Waterloo Duke of Shannon Hill No. 89879 and Winsome Duke 11th 115,137 at head of herd. Choice young bulls for sale now. Visitors welcome. Address **W. L. CHAFFEE, Manager.**

### CLOVER LAWN HERD POLAND-CHINAS.

Young sows and boars and spring pigs for sale. Prices reasonable. Stock first-class. **W. N. D. BIRD, Emporia, Kas.**

### "Wildwood" Herd Poland-Chinas.

For Sale Now! My two breeding boars, George 4420 S.; also Gen. Wilkes 1513, grandson of George Wilkes 5950 S. Both boars are 2 years old and good individuals. Can use them no longer.

**L. N. KENNEDY, Nevada, Mo.**

### Evergreen Herd Poland-Chinas.

**J. F. & P. C. Winterscheidt, Horton, Kas.** 150 in herd. Boars in service: Admiral Chip 7919 S., George Wilkes Jr. 11893 S., Corbett 11859 S. and Winterscheidt's Victor (Vol. 9). 45 sows bred for coming pig crop. 10 young boars and 40 glits ready to go. Write or come.

### JOHN A. DOWELL'S HERD REGISTERED POLAND-CHINA SWINE.

**Robinson, Brown Co., Kas.** 130 head, all ages, headed by Onward 5931 S., sired by George Wilkes. He is assisted by Tecumseh Wilkes, sired by General Wilkes 21927. The females belong to the best strains. Come or write.

### W. E. GRESHAM, Burrton, Kansas, Breeder of POLAND-CHINAS.

Won six prizes, including first blue ribbon west of Mississippi at World's Fair. Stock all ages for sale.

### BROWN COUNTY HERD, PEDIGREED POLAND-CHINAS.

**ELI ZIMMERMAN, Hiawatha, Kas.** 46 brood sows in herd, headed by Black U. S. Nemo (Vol. 9), Model Wilkes (Vol. 9), Sunset Chip (Vol. 9) and Billy Dupont (Vol. 9). Female lines: All Right, Short Stop, King I. X. L., Wilkes, Free Trade, Wamaker. Aged sows, bred glits and fall pigs for sale.

### P. A. PEARSON, Kinsley, Kansas, Breeder of Poland-China Swine

All ages for sale. Herd headed by Dandy Jim Jr. and Royalty Medium, a son of Free Trade.

(Breeders' Directory continued on page 16.)

## AUCTION SALE

Four Choice Bottom Farms to be Sold to the Highest Bidder Without Reserve, at

**Independence, Kas., Wednesday, Feb. 20.**

**THE BENNETT FARM,** 371 acres choice bottom land, near Liberty; 200 acres in cultivation, 125 in wheat, ninety in timber; good improvements.

**BROC FARM,** 180 acres bottom land, near Elk City, in Elk river valley; 100 acres in cultivation; good buildings and orchard and timber.

**CONNOR FARM,** 160 acres choice land, three-fourths mile from Bolton, on Santa Fe railway; 100 acres in cultivation; orchard, etc., and other improvements.

**WATSON FARM,** eighty acres Bee creek valley land, near Havana station, on the Santa Fe road; thirty acres in cultivation.

For particulars address

**FOSTER BROTHERS,**

Real Estate Agents, Independence, Kas.

Or, **J. C. FORD, Executor of Estate of F. F. Ford,** 16 Gibraltar Building, Kansas City, Mo.



## The Stock Interest.

### THOROUGHbred STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

FEBRUARY 7—W. H. Wren, Marion, Poland-China swine.

FEBRUARY 13—J. F. & P. C. Winterscheidt, Horton, and M. C. Vansell, Muscotah, Poland-China swine, combination.

FEBRUARY 14—Dan W. Evans, Fairview, and J. A. Worley, Sabetha, Poland-China swine, combination.

FEBRUARY 28—Jno. A. Dowell, Robinson, Po and China swine.

### SHEEP HUSBANDRY IN KANSAS.

In response to a request of the Secretary of the Kansas Improved Stock Breeders' Association, the following was received from Mr. H. M. Kirkpatrick:

"I am in receipt of your favor of December 25, informing me—well, I might say, notifying me—of my assignment on your program to the topic of 'Sheep Husbandry in Kansas.' The subject is of great interest, and I hope Mr. King, Gov. Glick and Mr. Westbrook will all be on hand and hump themselves to the task of convincing the farmers of Kansas that here is a source of profit that they are neglecting if not ignoring. I regret that I have not had some time to devote to this subject, that I might have treated it more intelligently.

"I believe the sheep industry of the State is on the eve of a revolution. It will not be swift but it will be sure, because conditions exist that will compel a great change in methods and character and quality of the sheep, and my hope is that Kansas, this government experiment station, the State that tries everything that is new, eschews that which is evil and holds fast to that which is good, may be the first to get into the lead and profit thereby. I think the time is past when sheep can be kept at a profit for the production of wool alone. I can see no encouragement in that direction. There may be a time in the future when medium wool, such as is produced by the mutton breeds, will so largely predominate that there may occur a scarcity of the strictly fine wools, that can only be produced by pure-bred Merinos, and the price of fine wool advance to such a price that its production would become profitable, but this condition cannot soon be reached. The Boston Manufacturers' Gazette gives us an estimate that one-half the number of the sheep in the United States are of the Merino blood, and 40 per cent. are of the mutton breeds. Medium fine long staple wool brings the higher price, yet not a profitable price. I believe the price is abnormally low and will not always remain so. There is, however, nothing to encourage the hope of a much higher plane of values. Property values of all kinds have steadily declined since about 1870. The value of the leading articles of commerce since that date have declined about 32 per cent., the price of wool in England has fluctuated from 13 to 72 cents per pound in the last century, averaging for 1894, 21 cents. This data leads us to expect changing conditions that we must be prepared to meet.

"The receipts of sheep at the Chicago stock yards for 1894 were 3,090,000, an excess of 50,000 over those of 1893. Receipts of cattle for the same time were 155,000 less. The average price of beef cattle was 25 cents less than in 1893. Hogs averaged \$1.55 less, while sheep declined \$1.15. Is it not remarkable that the prices of sheep did not decline more in proportion, especially when we remember that the receipts of the previous year were largely in excess of the year preceding, and that the quality of a large share of last year's receipts were of notoriously poor quality, the glut being mainly the fag ends of many flocks?

"You have heard it said that the consumption of mutton is increasing. I give you these figures to prove it. While the demand took care of that large increase at Chicago, the same is true of Kansas City and other markets, but I have not the exact data. Then another fact, the rush to sell sheep has been going on all over the country, north, south, east and west. Local supply filled local markets to overflowing, so that the refrigerator car shipments to Eastern cities were almost

entirely cut off, nor was consumption increased by high prices of beef. It is true exports were good and are steadily increasing; there are no embargoes laid against American mutton, no pleuro-pneumonia or trichina there. We have the world for our market for our mutton, and the world has our market for their wool. I urge, therefore, the propriety of converting your flocks into mutton and wool-producing sheep. Australia and New Zealand flock-masters are doing it. These countries enjoy a superior climate for the production of fine wools to ours, and yet are introducing rams of the mutton breeds extensively into their flocks. We are told this cross gives them a wool that tops the market on price. The Merino ewe makes an excellent foundation for this cross. You have many of them in Kansas. You ought to have more. Do not give away what you have. Breed them to good mutton rams, and if you procure rams of the right breed, you will produce, in a few generations, a sheep that will produce as much wool that will sell for a higher price, and a carcass that will fatten easily and sell quickly in the market. Great Britain raises mutton breeds exclusively and imports largely. You can sell her nothing but the best quality of mutton. London market for the past year ranged from 12 to 13½ cents for dressed mutton.

"I believe on the majority of Kansas farms mutton can be produced cheaper than pork. Where alfalfa can be grown you have an almost perfect fattening ration for the sheep. Secretary Coburn has recently taught us to believe that alfalfa can be successfully grown in a vast area of our State. Sheep and alfalfa would mean prosperity to every farmer in the State. Better prices for mutton will surely prevail as soon as the rush to sell has subsided that has been caused by the renewal of the import duty. You will then have mutton and wool where you now have wool, and you should have two flocks growing then where one is growing now, and this is the revolution that I anticipated in the beginning."

### A Big Purchase of Herefords.

The FARMER has received from J. H. Veitch, one of the officials of the Chicago, Milwaukee & St. Paul railway company, of Kansas City, Mo., a memorandum of a lot of Hereford cows which he recently purchased from Gudgell & Simpson, Independence, Mo. Every animal was carefully selected on account of superior individuality. The selection was made by Mr. George N. Sprague, who has taken the lot to Mr. Veitch's farm, near Martinsville, Ind. It will be remembered that Mr. Sprague is an old-time breeder of white-faces in northern Ohio, and more recently of Aurora, Ill. He is the manager of this farm. Mr. Veitch expects, in the near future, to select a suitable male to go with this herd. The following comprises the list of animals purchased:

Sprite 7th 46863, calved April 13, 1891; dam Sprite, sire Don Carlos.

Mary 2d 31104, calved May 17, 1887; dam Mary, sire Sylvester.

Dorinne 10th (Vol. 15), calved March 17, 1892; dam Dorinne 3d, sire Earl of Shadeland 47th.

Donna 3d 56701, calved March 28, 1892; dam Donna 2d, sire Don Carlos.

Pretty Lady 11th (Vol. 15), calved June 5, 1892; dam Pretty Lady 3d, sire Don Quixote.

Mary 6th (Vol. 15), calved September 29, 1892; dam Mary 2d, sire Earl of Shadeland 47th.

Bonny Lulu 14th (Vol. 15), calved October 25, 1891; dam Bonny Lulu 7th, sire Brainard.

Gertrude 5th 51829, calved December 28, 1891; dam Gertrude 3d, sire Don Quixote.

Bright Duchess 13th (Vol. 15), calved May 23, 1892; dam Bright Duchess 3d, sire Don Quixote.

Lady Bird 6th (Vol. 15), calved September 9, 1892; dam Lady Bird 3d, sire Earl of Shadeland 47th.

Cow calf Sprightly (Vol. 15), dam Sprite 7th, sire Roseland.

Cow calf Welcome 12th (Vol. 15), dam Welcome 10th, sire Roseland.

Interesting circulars sent to farmers. Send name to Bureau of Immigration, Spokane, Wash.

### Some Good Horses.

The following particulars of the stud of 800 horses of the Bristol Tramways and Carriage Co., Bristol, England, have been received by Secretary Morton from United States Consul Lathrop: Car horses cost from \$170 to \$220.

Trace (draft) horses cost from \$270 to \$325.

(Bristol is very hilly and very good horses are required. The above figures are somewhat above what would be paid in many cities.)

The horses are picked up by the company's purchasing agent in Wales and the North and Midlands of England.

Cars run Sunday and week days, but arrangements are made whereby horses rest every seventh day.

Length of daily journey, average per horse, fifteen and one-sixth miles. Duration of work daily, three and one-half hours.

Bedding is of Dutch moss litter. Of this each horse is allowed thirty-two pounds per week, at a cost of \$6.86 per ton of 2,240 pounds; averaging per horse per week, 9.6 cents.

### PARTICULARS OF HORSE KEEP.

	Weekly cost per horse.	Price per ton.	Weekly per horse.	Daily per horse.	Feed.
	Cents.		Pounds.	Pounds.	
	22 25 13 2 15 42 33 38	\$18 16 13 62 13 78 15 30 66c. per bu. 60 lbs. 60c. per bu. 60 lbs. 42c. per bu. 38 lbs. 33½c. per bu. 54 lbs.	28 42 21 34 14 42 21 42	4 6 3 4 2 6 3 6	Canadian hay..... English or Irish straw..... Wheat or oat..... Barley..... Sorghum..... Molasses..... Draught barley..... Total.....
			218½	30½	

### Anti-Toxine.

EDITOR KANSAS FARMER:—The new diphtheria cure is just at present attracting much attention. Kindly allow me to quote from an article in another journal:

"The diphtheria remedy of Dr. Rous, of Paris, is one of those beneficent developments of medical science which will place the name of its discoverer in the list with Jenner, Simpson, Lester and Pasteur."

The treatment is founded on the principle that animals immunized against the diphtheria poison have a blood anti-toxine, that is to say, that their blood contains a substance which neutralizes the effect of the diphtheritic germ, and it works in this neutralizing way with great force and efficacy."

Now, allow me to quote from the extracts on "Hog Cholera and Swine Plague" in the KANSAS FARMER of December 26, 1894:

"Hog cholera is particularly fatal to young pigs, and often attacks them when old hogs escape. The older animals have a greater power of resistance to the virus, and this power, which is also known as immunity, is increased when hogs have been exposed and only so slightly infected that they have recovered after an illness of some slight duration, or without showing any evident symptoms of the disease. In other words, if hog cholera breaks out among a herd of swine and is checked or apparently eradicated by medical treatment, the hogs that are saved are capable of resisting the contagion on the premises, while purchased hogs that have not been exposed will, when put with the others, contract the disease and die."

Putting two and two together, as we say, I was led to ask of myself, is there not manufactured in the blood of those hogs which are "immunized," as in the case of the horses on which the doctors

of St. Louis are experimenting, an anti-toxine as capable as it of resisting the germ which attacks it? If so, then there is no need of any more investigations by the government along this line, for the hog cholera question is solved. Anti-toxine can be supplied to farmers and animals can be treated with little more trouble than it takes to ring them. Let some one who can experiment on this do so and give us the benefit of his experiments in our favorite paper, the KANSAS FARMER. If successful, he may also add his name to that famous list and add substantially to his bank account if he can save the United States alone \$5,000,000 annually, not to speak of the nations of Europe.

In addition, let some observing persons give their observations and experience concerning hog cholera.

Piqua, Kas. A. T. ELLISON.

### Frozen Cabbage Fatal to Hogs.

EDITOR KANSAS FARMER:—November 1, 1894, I had ninety-two head of fine hogs, sound and healthy, many of them ready for market. Some of the number were brood sows with pigs. Having some cabbage (partially frozen) I fed it to a few of the brood sows. They soon became sick, which resulted in cholera in a short time. I separated the sick from the well hogs and went to doctoring them. The result was that every hog on the farm took the disease. Seventy-eight head have died to date. Some may get well from present appearance. As no contagious disease has been in this vicinity for at least three years, we conclude that frozen cabbage was the cause of the start of the disease, and wish to caution all stock-raisers to guard against the cause of it. Thus far we have been successful in keeping the disease confined to our farm with the very best of care, and hope to do so in the future. If any one doubts those hogs having had the cholera in its worst form, he is invited to write to me for any information he may want. J. E. STAUFFER.

Box 113, Newton, Kas.

In its experiment with cheap hog foods, the Oklahoma Experiment Station grew sweet potatoes at cost of 15 cents per bushel. This, in spite of the extreme heat and on the poorest soil on the farm. The variety was the Southern Queen, one of the best for Oklahoma. Hogs turned into a field of sweet potatoes early in the fall, grow rapidly and put on very firm fat. This is a practice very common in many locations in the South, which is recommended here as a cheap and economical method of fattening hogs.

"During the past year," says J. G. Springer, of Illinois, "Southdown sheep have been very satisfactorily successful. While denominated the 'Little Southdown,' they have in the show ring proved themselves profitable as early mutton-producers. At the Smithfield show, England, five Southdown wether lambs, of an average age of 290 days, showed an average weight of 176 pounds. At the same show, five Shropshire wether lambs, averaging 284 days, gave an average weight of 173 pounds. At the Birmingham Fat Stock show, England, four Southdown wether lambs, average age 288 days, weighed an average of 148 pounds, and at same show five Shropshire wether lambs, average age 265 days, gave an average weight of 147 pounds."

### When the Kicks Come In

Is not the title of a new song, nor does it refer to the backward action of that much-maligned animal, the mule.

It is a phrase used by the inhabitants of Oklahoma to designate the approaching opening of the fruitful acres of the Kickapoo Indian reservation.

If you wish to find out all about the Kickapoo lands, as well as those belonging to the Wichita and Comanche tribes—where cotton, wheat and fruits will pay handsomely—ask G. T. Nicholson, G. P. A., Santa Fe Route, Topeka, Kas., for a free copy of Oklahoma folder.



## Agricultural Matters.

### Deep Plowing--Fodder for Feed.

EDITOR KANSAS FARMER:—The last summer's drought has not been without its lessons of profit to those who are willing to look for them, and well will it be for us, as producers from the soil, if we wisely improve by them. I have a neighbor who is a corn-raiser, who had a fair crop of corn this year on such soil as that on which most of his neighbors made almost an entire failure. His soil is high prairie with tough clay subsoil, but it has been well tilled for a number of years. Last spring, early, he put in the plow and turned it from nine to ten inches deep, and when planting season arrived, rather early, he marked it deeply with a three-row marker and run a drill immediately after it, putting a grain about every sixteen inches. He then kept it well cultivated, with the result of about thirty bushels per acre, while on that listed beside it he did not realize ten bushels per acre. No doubt this difference was owing to the deep plowing, as cultivation was no better on the deep-plowed than on the listed land. I, myself, have learned by this summer's experience that two tons of millet to the acre grew on land that had been well cultivated and manured, while equally good land, but unmanured, brought less than one ton per acre. The manure had been on for two years and was not fresh. My past experience shows that manuring pays equally well in good years.

I have this year cut all my fodder to save the hay and millet, and find that with plenty of fodder milch cows will produce equally well on one half the grain necessary when fed prairie hay and grain. Many cattle here are doing well with no feed but fodder. I have also learned that about one-half the grain usually fed to horses will keep them in fairly good condition, thus showing that we waste our grain when plenty. CLARKSON HODGIN.

Dwight, Morris Co.

### Subsoiling a Success.

EDITOR KANSAS FARMER:—I have noticed considerable inquiry in the FARMER in regard to subsoiling. As I have had some experience in this matter, I will give it for the benefit of any one interested, and every farmer in the West should feel interested.

I bought a Perine subsoil plow a little more than a year ago, and during last winter and spring I subsoiled about fifty acres. The work was done with two teams and two plows, in the following manner: The first plow was an ordinary sixteen-inch sulky plow, drawn by three horses and run seven inches deep. I was careful to plow all the ground. The second plow was the subsoiler, drawn by four good horses, combined weight 5,800 pounds. The subsoiler was run in every furrow at a depth of eight to ten inches below bottom of the furrow made by the sulky plow. One horse on the subsoiler had to walk on the plowed ground. The subsoiler pulls very hard for four horses; I think four horses like Mr. Norton's largest one would be just the thing. In a field 120 rods long we generally stopped at both ends to allow the team on subsoiler a little rest. The man who held the subsoiler had no picnic at all. After the ground was plowed and subsoiled, it resembled an ordinary plowed field, the surface soil being on top.

When we harrowed the ground it seemed as if the bottom had dropped out; the horses sank nearly to their knees. The ground being level and very loose, I could not plant it with a lister, so used a common two-horse check-row planter.

Last year was the driest in twenty-three years. My corn on subsoiled ground made thirty-five bushels per acre. Corn planted same way on just as good ground, only not subsoiled, made very little or nothing.

I subsoiled my potato ground. From nine bushels of seed I got 110 bushels of potatoes, of a superior quality. I subsoiled my graden and never had a better garden.

I have just begun to realize the full

advantage to be derived from subsoiling. Wherever I have used the subsoiler for the first time I have found the subsoil very dry and very hard. During the first half of December I prepared a field for alfalfa that was subsoiled and planted to corn last year. I plowed and subsoiled it again this year. I run the first plow eight to ten inches deep, the subsoiler ten inches to twelve inches below bottom of furrow made by the first plow. The dry, hard subsoil I encountered last year has vanished. Surely the moisture from below has met the moisture from above. I verily believe that when our land is subsoiled, the subsoil that is now dry will then remain moist and crop failures will be rare. Will this not be cheaper than irrigation? I shall subsoil all my ground as soon as possible. My subsoil plow cost me \$12.46. I would not exchange it for its weight in silver if I could not get another that would do the same kind of work. C. W. PECKHAM.

Haven, Kas.

### How He Subsoiled.

EDITOR KANSAS FARMER:—You have divined our rural wants pretty closely in the near past. That report of Mr. Youngers, of Nebraska, on subsoiling, delighted many of our enterprising farmers, who positively believe that the subsoil plow will redeem central Kansas when any experiment is tried. We all have very positive convictions as to the best manner of doing the work and the very best time for doing that work, but even if practical farming experiments differ from our ideas, we will be glad to hear from Mr. Youngers as to the best time for subsoiling. Some of us fear to run the subsoil plow after the middle of March, fearing that the soil may not settle sufficiently to grow the crop. As Mr. Youngers has used the plow eight years, perhaps he will kindly tell us the depth best suited for our soil and season. Does subsoiling cause the soil to remain cold at planting time? Does Mr. Youngers realize better crops the first season after subsoiling, and how long does he find substantial benefit from it?

I have received reports from several States on this mode of preparing the soil, and am sorry to say that outside of Missouri there was nothing to induce any farmer to incur the expense and labor, except it was the one from Wisconsin, which said, "a benefit in a dry season." That, you know, is usually the condition of central Kansas when corn is shooting. I decided that it was hardly possible to spoil my corn land by the subsoil plow, and first listed fifty acres with three horses, going as deep as possible. Then put five large horses on the Perine plow and subsoiled the furrows on over thirty acres. Then returned to the place of beginning and subsoiled the ridges, running the plow almost to the beam. I have that corn field pulverized seventeen inches deep. When the ground thaws I will subsoil the ridges of the balance about twenty inches deep. I have two rods of same land adjoining that I will plow, then thoroughly harrow the whole field and plant with the check-rower, and believe I will have a pretty good experiment.

If not asking too much, please get a reply from Mr. Youngers and embrace the other report except the analysis of the soil. A. J. HARTSOCK.

McPherson, Kas.

### How Shall He Plant His Small Grain?

EDITOR KANSAS FARMER:—Will some practical farmer please tell me the best way to put in small grain, such as oats, millet, flax and sorghum? Do they do best put in with a press drill or to sow broadcast? Which is the best kind of press drill, one that has the shoes five, or one that has the shoes six inches apart? L. H. TILDEN.

Pontiac, Kas.

The day will come when the Minneapolis millers will be glad to put Kansas hard wheat flour on their product, as three-fourths of the flour coming from the United States will be shipped from Kansas, Oklahoma and other Southern States.—*London Corn Circular*, October 15, 1894.

### How to Raise Kaffir Corn.

EDITOR KANSAS FARMER:—I have noticed so many and conflicting reports in regard to raising and the *modus operandi* of planting, handling and threshing Kaffir corn, that if you will give it a place in your columns I will give my experience for six years.

In spite of experimental stations, professors, etc., I will continue the following year, at least, the same plan, viz.: Plow the ground as soon as it is warm enough to grow corn; put in fine condition by harrowing and floating or rolling; then take a press drill, stop all the holes but two in eight hoes or three in nine hoes, and set so as to plant three to five pounds per acre—not three or four quarts, as Prof. Georgeson says. Set drill to run three inches deep. When two inches or so high, harrow. Now keep harrowing to keep weeds down until you cannot harrow any more—too large. Then cultivate so as not to ridge up the rows. Much depends upon good, shallow culture. According to the quality of the soil, and with such weather as any other forage will grow, you may expect a crop of seed and forage equal, if not superior, to anything of the saccharine or non-saccharine sorghos.

Now then, when the first seed heads are ripe, if you wish first-class fodder, take any good binder, and as your rows are thirty-two inches apart you can cut two rows at once and bind it as you would wheat. Shock in like manner, and when dry stack it.

Any good threshing machine will handle it by removing all the concaves, and you will have clean seed and good fodder. Get your seed ground or chopped, as you like, and you have feed for man or beast. The whole seed cannot be beaten for chickens, nor the ground seed for milch cows. Plant the white seed. W. J. BOGGS.

New Cambria, Kas.

### What Next?

EDITOR KANSAS FARMER:—In a seedsman's catalogue for 1895 is the description of a new forage plant, called sacaline (*Polygonum sachalinense*), of which the introducer says: "Is perfectly hardy even in Siberia; flourishes in the Indies; requires no plowing before planting; needs no cultivation, no replanting. Roots penetrate deep into the soil. Once planted, stands forever. Endures severest drought with impunity. Grows in poorest soils. Luxuriates in wet lands. Thrives where no other forage plant will grow. Young shoots and leaves eaten as a vegetable. Stems and leaves, green or dry, greatly relished by cattle, sheep or horses. More nutritious than clover or lucern. Gives three and four cuttings per year. Produces ninety to 180 tons of green forage per acre. Grows fourteen feet high by June. Excellent soil enricher. Planted at any time. Affords shade to cattle in summer. Protection against storms in winter. Floods will not destroy it. Fire will not kill it. Cattle cannot trample it out."

"What next?" As I re-read the above, the first thought that comes to me is, can we ever kill it out, if it is anywhere near as represented? Do any of the KANSAS FARMER readers know anything about this plant? Wouldn't it make a good wind-break around the corral? While reading the introducer's remarks, the thought strikes me that everything said about this strange plant can be said about our large variety of pig-weed. Pig-weed (lambquarter) makes quite nice greens and will do everything that is claimed for this plant. I have seen it fourteen feet high, but not so early as June, though.

Some of us must try this new plant and report. If it is as claimed, there is big money in it. Will Secretary Curnutt please tell us if he knows anything about it?

Another thing in the same catalogue is the Kansas stock melon, said to be of large size—sixty to seventy pounds. This is a pie-melon, or citron, and fit only for stock and preserves. The agricultural report says: "Farmers who do not use ensilage, and who will not take the trouble to raise roots, can raise a crop of stock melons at little expense, which, fed with hay and corn-

fodder, will make the ration more palatable, and better returns in milk and meat. The melons will keep all winter, and forty tons is not too much to expect to an acre, and under favorable conditions sixty tons can be raised." Now, let us figure a little. One seed in a hill, eight feet square, is 640 hills to the acre. If on rich ground, and well taken care of, there ought to be five melons on a vine, or 3,200 on the acre, and if they should average forty pounds each there would be 128,000 pounds, or sixty-four tons. I am somewhat of a melon-raiser, and if they grow as large as stated, I will venture I can raise 100 tons on a single acre.

Some time I will try and write my method of raising watermelons.

CLARENCE J. NORTON.

Morantown, Kas.

[The editor knows nothing about the wonderful forage plant referred to by our correspondent, but is willing to vouch for the fact that immense crops of pie-melons can be produced, and for the further fact that in nutritive value they resemble water more closely than any other known substance.]

### Inquiries About Silos and Ensilage.

EDITOR KANSAS FARMER:—Several of my neighbors, as well as myself, are anxious to learn something about silos and ensilage. As there is none in our immediate country that we can go and examine, we would like to hear from the different farmers and dairymen who have tried them. We would like their ideas in general about them—how to build them and how best to fill them. What is the most successful cutter in use for cutting the ensilage? What will it cost per acre to silo good average corn? When is the proper time to put corn in the silo? If any have good second-hand cutting machines that they wish to sell, they might find buyers for them by advertising them in the FARMER.

We have a good average corn and grass country here, and, as wheat is yet so cheap that we cannot afford to raise it for market any longer, we must turn our attention to something else for a living. We are thinking pretty strongly of trying the dairy business; so any brother farmer or dairyman who will write an article and have it published in the FARMER, giving us his ideas on the above matter, will confer a favor on us farmers in this part of the country.

Oswego, Kas.

A. D. L.

### Farmers' Institutes.

Institutes will be held at the places and dates as stated below and the Agricultural college will be represented at these institutes by the members of the faculty named:

Garden City, Finney county, January 29, 30 and 31, Prof. Mason.

Lakin, Kearney county, January 31 and February 1, Professors Hitchcock and Mason.

Stockton, Rooks county, January 31 and February 1, Professors Mayo and Will.

Russell, Russell county, February 7 and 8, Mrs. Kedzie and Prof. Mason.

Peabody, Marion county, February 14 and 15, Professors Popenoe and Walters.

Clay Center, Clay county, February 15 and 16, Prof. Lantz and President Fairchild.

Haven, Reno county, February 21 and 22, Dr. Mayo and Mr. Burtis.

Cherryvale, Montgomery county, February 21 and 22, Professors Popenoe and Georgeson.

A recent report says: "Artichokes grew on the Oklahoma Experiment Station at the rate of a few pounds over a ton per acre. Few plants are as productive, with little or no attention whatever. As they are not injured by the mild cold of this section they will not be dug, but in the spring, hogs will be turned in to complete feeding experiments made with other cheap foods. Farmers having rough lands in the bends of creeks should by all means try a patch of artichokes in such places."

BROWN'S BRONCHIAL TROCHES are unequalled for clearing the voice. Public speakers and singers the world over use them.



## Irrigation.

### FRUIT AND VEGETABLE-GROWING UNDER IRRIGATION.

By C. H. Longstreth, Lakin, Kas., read before the twenty-fourth annual meeting of Kansas State Board of Agriculture, January 11, 1895.

In the spring of 1886 I made my first planting of trees, planting at this time 500 apple, 500 peach, 100 cherry, 100 plum, and a small amount of small fruits of various kinds. Now, in farming and fruit-growing I was at home, having had several years practical experience in both lines of work. But here was a new deal. This farming by irrigation had seemed very simple and easy to my mind up to this time. Theoretically I was posted and thought I knew something about it. But when I came to putting my theories in practice I found I had a little more to learn yet before I would be able to graduate as a professional in the art. But my theories and investigations had proven beyond any question of doubt that all the possibilities were here to make a success of this line of work. So I took hold of it with a determination to win, providing my life and health were spared. Since my first planting, in 1886, I have added to my orchard plantings until I now have about sixty acres planted, comprising 3,000 apple, 300 standard pear, 400 plum, 100 cherry, 200 Russian apricot (budded varieties), and 1,000 peach. Small fruits I have done very little with further than growing an abundance for home use. Have done the same with vegetables, growing enough for home use only. My specialty has been large fruit-growing, the smaller fruits and vegetables being a secondary matter.

Now, on this irrigation question, I find that it is practically divided into three systems: First, by flooding from open ditches; second, pipe line under ground, distributing water by hydrant and hose; third, by tiling, distributing the water below the surface, forming what would be termed sub-irrigation. The flooding system is the one generally practiced in western Kansas, and the only one with which I have any practical experience. I am satisfied, though, for several reasons, the piping system is much better. I believe the tiling system has advantages over either of the others, provided it can be made to work at all. Of this I am not certain and am waiting for more information before I adopt either. But I am fully decided that I shall eventually use the piping system if I find the tiling system does not work. This method of irrigation, however, applies to small fruit and vegetable-growing and intensive farming only. For growing grains and hay the flooding system will always be the most practicable. Under the flooding system the water is led to each farm from the main canal through what we term lateral ditches, each farmer taking his portion of the water from this lateral ditch through a box or gate which empties into a smaller lateral ditch, that is made to convey the water to any part of his farm that he wishes to irrigate. When the water has reached the field or crop to be irrigated it is there run into what we term a head or supply-ditch, and from this smaller ditches are made which are called field or distributing ditches. These distributing ditches are made at various distances apart, depending on the lay of the land, whether level or uneven. As a rule, however, we aim to make them about eighty feet or five rods apart. I have tried various distances and I find that eighty feet is close enough and about as far apart as they will work well in distributing water evenly.

Now, as to the manner of applying water. In all vegetable crops we aim, as far as possible, to run the water between the rows, and not allow it to touch or cover the plants if we can well prevent it. But my main object when I irrigate is to wet the ground all evenly and as thoroughly as I can. If it becomes necessary to run the water on plants to accomplish this I let it run. I find it does the plant little, if any, harm to run water all over it. I used to think that nights and cloudy weather were the best and only safe times to

apply the water. But I have found that the best time to apply the water is when the crop needs it and when I can best spare the time to apply it, whether it be day or night, sunshiny or cloudy. I see but little, if any, difference in irrigation at night or in the middle of a hot, sunshiny day.

I find a great many people think that if they have plenty of water to run on their crops they have all that is necessary. This is a mistake. It is just as important, and I think even more so, that special attention be given to the cultivation of the soil or crop, as to the irrigation part of it. If I were compelled to make a choice between irrigation and cultivation, would take the latter every time. Am satisfied that I could, as a rule, get better results from cultivation alone than from irrigation alone. In order to get the best results from either, or both combined, it is necessary to have the soil in the best possible condition, that is, to have it deeply plowed and every particle finely pulverized before putting in any crop. If the soil is not moist enough at time of planting of crop it is well to apply the water and give it a thorough soaking. As soon as it dries off sufficiently to go on it with a cultivator, give it a thorough stirring and then go over with harrow or drag, thoroughly pulverizing. This cultivation need not be deep. The point is to get the surface pulverized as fine as possible, which acts as a mulch, checking evaporation and retaining the moisture below. This same condition applies to crops all through the season after each irrigation. Just as soon as ground dries enough to work without sticking go right on with cultivator or harrow and break the crust that has formed, pulverizing the surface finely. Observing these rules strictly I have found that I save a great deal of water, besides trouble and expense of applying so often. Furthermore, thorough cultivation places the soil in condition for the plant to get all the elements from the soil necessary for its growth and lets the air down to the roots. We don't want to lose sight of the important fact that the vegetable kingdom, like the animal kingdom, must eat, breathe and drink in order to live and thrive. I will say here, in this connection, that I have every reason to believe that subsoiling will have a great tendency toward helping retain moisture in the soil. My faith in this was strong enough to induce me to purchase a subsoil plow this last spring and give it a trial. I did not get the time to test it as thoroughly as I should have liked, but I used it far enough to convince me that it will pay well to subsoil every acre I have under cultivation. It does not take as much water by one-fourth or more to attain the same results.

I am often asked the question, "How often do you water your crops?" I might properly answer this question by saying, whenever I think they need it. As to how often we apply the water depends upon the nature of the crop, character of soil, etc. We simply must exercise our own judgment in this matter. To obtain the best results we need to keep the soil just at the point of saturation; that is, whenever you can take a handful of the soil and by pressing it together leave an imprint of your hand, you have the soil in the best possible condition for plant growth. If there is not moisture enough to make it stick I know it needs water and I proceed to give it water. If the cultivation is promptly attended to you will find you will not need to apply water as often.

As to results of my work thus far, I may say that all my expectations have been fully realized. Vegetables, such as potatoes, both Irish and sweet, onions, cabbage, turnips, beets, tomatoes and all garden stuff produce abundantly. Rhubarb, or pieplant, yields enormously, often producing stalks weighing a pound and over. Have one acre of asparagus which yielded, the past season, 1,500 pounds of grass, netting me \$110 above all expenses. This was the third year from planting.

In the fruit line I believe I am safe in saying that the apple, plum, cherry

## Irrigated Farms---\$1,000!

Out of a thousand farms in **SOUTHWEST KANSAS**, of 160 acres each, we are selling a limited number equipped with an independent and permanent irrigation plant sufficient for at least ten acres on each farm. The price at which these 160 acre farms are selling is merely about what the ten acres and irrigation plant are worth.

Before buying a farm investigate this. Special terms made for Colonies. Call on us or write for particulars.

### THE SYNDICATE LANDS & IRRIGATING CORPORATION,

Room 412 New England Life Building, 9th and Wyandotte Sts., KANSAS CITY, MO.

and pear are an assured success and can be depended upon to give a fair yield any and every season. Many of my apple trees, of such varieties as Missouri Pippin, Winesap, Jonathan and Willows, made a yield the past season of from eight to twelve bushels per tree. Cherries made an average yield of one and one-half bushels per tree and plums nearly three bushels. Peaches, apricots and other fruits of this class I find very uncertain on account of severe cold weather and late frosts, which kill the fruit buds. I would not advise the planting of them in a general way. All small fruits, such as raspberries, blackberries and strawberries, yield enormous crops of fine large fruit of excellent quality. The Concord and Niagara are the only varieties of grapes with which I have experimented. Both do exceedingly well and can be depended upon. As to general farm crops, I have simply aimed to grow a sufficient supply of hay and grain for home use, growing oats, barley and Kaffir corn for grain and alfalfa for hay. All of these crops give large yields, alfalfa in particular. I commence cutting this crop about the last of May, and it seems almost impossible to stop mowing from that time until freezing weather, the growth being so enormous and rapid. It is a crop peculiarly adapted to irrigation, and its production seems unlimited where properly irrigated.

Now, there is one more question I wish to speak of before closing, and that is irrigation by windmill and pump. Having what seemed to be an inexhaustible water supply beneath the surface, I made up my mind to investigate and try the experiment of raising this to the surface. In the spring of 1893 I purchased and had put in what is called the Gause pump, using as power to run it a fourteen-foot Halladay windmill. This pump being put in under the drive-well system, has six two-inch points, three feet long, attached to the same number of pipes of the required length, and all connecting with a larger pipe having an eight-inch cylinder. The windmill has a twelve-inch stroke and under a fair wind will make about thirty strokes per minute, raising about seventy gallons of water, this being 100,800 gallons every twenty-four hours. This would be sufficient water to irrigate twenty or more acres of land thoroughly, but we can't depend on the amount from wind power. In fact, I very much doubt whether windmill power is just the power to run these pumps. I know that Kansas has the reputation of being a windy State, but I have found, when I come to make use of that wind, it is not there. I don't think you can count on a windmill running more than a third of the time, and I doubt if it will run a pump to its full capacity more than one-fourth of the time. Such, at least, has been my experience in the pumping business. For this reason I am not hurrying to put in any more windmill pumps. I am now, however, investigating and figuring on putting in a larger pump and running the same by steam or gasoline engine. I am satisfied that pumping water is going to be our chief means of supply in the very near future. The question is often asked me as to how much land I can irrigate with the pump I now have. This is a difficult question to answer, but I am safe in saying I think that it will furnish an

abundance of water for ten acres, and with a constant and steady power it would, of course, more than double this amount. A good reservoir is needed in order to get satisfactory results. I have a reservoir at this pump, size 100 feet square and five feet deep. In building this I simply used team and scraper, laying off the ground and taking all dirt from inside of reservoir to build the banks. In finishing I plow the bottom of the bed of reservoir and pulverize the soil as fine as possible, then turn in the water. I had some difficulty at first in getting it to hold water, but it seems to be perfectly water-tight now. I have put in fish, the German carp, and they keep the water riled and muddy, which, I think, has had a tendency to seal the bottom and sides. This reservoir, built in this manner, cost me about \$25, and I think is just as good as though I had used cement in making it water-tight, and which, of course, would have added considerable to the cost.

### Experimentation Needed.

EDITOR KANSAS FARMER:—In your issue of January 2, 1895, I notice an article, accredited to Prof. O. P. Hood, in the *Industrialist*, upon the subject of "Irrigation—A Problem in Mechanical Engineering."

Prof. Hood has, in my opinion, struck the key-note of the needs of western Kansas in the matter of irrigation experiments. It is a well-known fact that there is water under the surface of the plains; but the extent and availability of this water supply, for irrigation purposes, is almost wholly an unknown quantity. It has been proven, beyond question, that water can be successfully pumped, by windmill power, in the valleys along the streams where the water can be obtained at a depth of fifteen to twenty-five feet, and it may be said that it is pretty generally understood how to get this water onto the surface in the most practical and

## WATER PIPE.

Our Hard Burned Vitrified and Glazed Clay Pipe is ever-lasting. With our Improved Joint this pipe will stand same pressure as iron and costs about one-fourth as much. Write for particulars.

W. S. DICKEY CLAY MFG. CO.,  
Makers of all kinds of Burned Clay Goods.  
Office 800 N. Y. Life Bldg., Kansas City, Mo.

## WITTE GASOLINE ENGINE

Nothing Succeeds Like

SUCCESS.

WITTE IRON WORKS,

Kansas City, Mo. 1 CENT 1 HOR 1 HOUR.

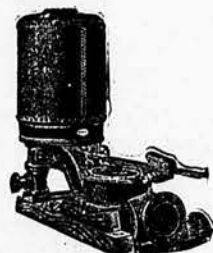
## CHEAP WATER SUPPLY BY AUTOMATIC RAMS

A COST OF LESS THAN

25

CENTS

PER ACRE  
PER YEAR  
GUARANTEED.



This is the only known economical method of irrigation on a small scale and for supplying water for any purpose on Stock Farms, to Country Residences, Creameries, Dairymen, &c.

A RIFE RAM will elevate water in any quantity to any height at any distance. Made in all sizes, for all purposes, and will deliver more water than any other ram under same conditions. Ill. Catalogue and estimates free. Rife's Hydraulic Engine Mfg. Co., Roanoke, Va.

## WEBER GASOLINE ENGINE

For use in any place or for any purpose requiring power. Only a few minutes' attention required. The simplest, most economical and best power. Send for circular. Address Weber Gas & Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.





least expensive way to secure the best results therefrom; but the areas upon which water can be pumped from a depth not exceeding twenty-five feet are, comparatively speaking, very limited, while outside of those localities there is a large area of the western portion of the State, upon which, if irrigation is practiced at all, it will be necessary to pump water from a depth of twenty-five to 100 or 150 feet, and with the present generally-known appliances, it is a matter of considerable expense for a farmer to attempt to irrigate even five acres with water pumped from a well 100 feet deep.

Western Kansas has been very largely settled upon the belief that irrigation was unnecessary for successful farming, and the uplands have been considered, heretofore, fully as good, if not better for farming purposes, than the low and usually sandy bottom lands. The result is that a great many farmers own lands which would, beyond all question, afford them a good living if they could irrigate, say, ten acres out of their quarter section; but if they have to pump water fifty or 100 feet in order to irrigate, they are not financially in a position to undertake to experiment with different kinds of machinery in order to obtain that which will do the work most satisfactorily and at the least expense.

Prof. Hood says that the problem of raising this water is one of mechanical engineering, and that the experiment should be carried on where necessary instruments for testing and determining the comparative mechanical value of different appliances can be readily designed and constructed. It is unnecessary to enlarge upon his statements and arguments in this respect, as their truth will undoubtedly be admitted by every one who is interested in the subject.

The State of Kansas has it within its power, and at a very light expense to the State, to carry on this experimental work and do it in a manner best calculated to obtain definite and true results. The State is receiving this year, from Congress, some \$18,000 or \$19,000 which is given for the purpose of carrying on agricultural experiment work. This is a permanent annual appropriation, and increases at the rate of \$1,000 per annum until it reaches the amount of \$25,000 per annum. Thereafter no increase is made, but the annual appropriation continues. This money has heretofore all been used in sustaining the agricultural experiment farm at Manhattan; but in justice to the great number of people who are now living in the western part of the State and endeavoring to make their homes there, and who cannot be benefited, to any great extent, by agricultural experiments carried on in the eastern part of the State under conditions which are utterly dissimilar to those in the extreme west, a large portion of this amount should now be used in maintaining sub-stations in the western portion of the State, where agricultural experiments can be carried on for the benefit of that locality.

If the State would establish such sub-experiment stations, it could at the same time incorporate into its experiment work provision for testing various forms of pumps and engines for raising water for irrigation purposes, and certainly it is just as necessary for the western farmer to know the best means for getting this underground water onto the surface of his land as it is for him to know how to apply it when it is there, or what crops will grow most successfully under its application.

I think the present session of the Kansas Legislature should be as liberal as it can in the appropriation of necessary funds for the establishment and maintenance of at least two experiment stations in western Kansas. One of these stations should be so located that water can be obtained at a moderate depth, say less than twenty-five feet, and experiments carried on to determine all matters pertaining to the raising of such water to the surface of the ground and its use and application in irrigation. The other should be located where water can only be obtained at a considerably greater depth, and similar experiments in the deep well carried on at that point. In addition,

experiments should be carried on to determine what products can be raised with the best results without irrigation. The conditions of western Kansas, in my opinion, warrant the experiments both with and without irrigation.

B. A. MCALASTER,  
Land Commissioner Union Pacific Railroad, Omaha, Neb.

[Our correspondent is in error as to the Congressional appropriation to the experiment station at Manhattan. The amount annually appropriated is \$15,000 and it does not increase. The appropriation mentioned by our correspondent cannot be used for experimentation, but for instruction.—EDITOR.]

A subscriber inquires: "Will some of your readers kindly explain in detail how they construct the outlets for their reservoirs, so as to control the flow of water and have no leakage while not in use? I have been troubled on this point. Manufactured contrivances large enough for the purpose seem a little expensive."

#### Chicago Live Stock Market Review.

Receipts of stock last week as follows: 59,300 cattle, 230,500 hogs, 61,200 sheep. Receipts this week, compared with last week, show an increase of 1,500 cattle, 13,500 hogs and a decrease of 8,600 sheep.

The trade at the close of the week was generally steady for good to choice beefs, but unevenly lower and dull for the rough grades. The supply has been constituted largely of the half-fat and coarse cattle. Prices for light cattle ruled quite good lately, and that fact, together with cold weather and scarcity of feed in many sections, forced to market a large share of unfinished stock. The general demand for cattle is good, yet buyers are not buying more than they need for their immediate wants. This is why country shippers should avoid following periodical spurts. We quote: Choice to extra beefs, \$5.50 to \$5.75; good full-fed 1,200 to 1,400-pound steers, \$4.25 to \$5; fair steers, 1,200 to 1,450 pounds, \$3.75 to \$4.50; feeding steers, 950 to 1,150 pounds, \$3.25 to \$3.75; stockers, 600 to 800 pounds, \$2.25 to \$3; fair to good cows and heifers, \$2.75 to \$3.50; canners 1.65 to \$2. The market on milkers and springers has not changed materially, yet it requires very good springers to bring \$35; good cows and calves, \$25 to \$28; bulk, \$22 to \$27.

Receipts of hogs to-day, 10,000. The number carried over from Friday was below the estimate and there was a better feeling in the market. There has been a decline during the week of from 15 to 20 cents, caused by heavy receipts. The supply of light hogs has been very large and prices have declined more on that grade. We quote: Good to prime heavy, \$4.40 to \$4.50; fair to choice heavy mixed, \$4.20 to \$4.35; hogs averaging around 200 pounds sold at \$4.15 to \$4.20; light mix d. 160 to 180 pounds, \$4 to \$4.10, according to quality.

The sheep market has been very good throughout the week, although prices are about the same as a week ago, but lambs are some higher. The best of the market was in the middle of the week, the market closing 10 to 15 cents lower than the best time, the decline occurring Friday. There is a good demand for export stuff. Choice lambs, \$4.25 to \$4.60; bulk selling \$4 to \$4.25; choice heavy export sheep, \$3.40 to \$3.90; medium to good, \$3.85 to \$3.35; poor to fair, \$1.75 to \$2.50; choice heavy export bucks, \$2.75 to \$3.

JEROME.

#### The World Moves Too Fast.

That is what a farmer told us at the Chicago fair when he saw the wonderful array of farm and vegetable crops. Think of an oat yielding 200 bushels per acre on 100 acres. (We learn the Salzer Seed Company offer \$300 for a suitable name for this oat wonder), a wheat 112 bushels on two and one-half acres, potatoes 1,000 bushels and grass and clover hay six tons per acre. Truly agriculture moves, and you will be rich and happy if you sow such seed. Where can I get them? Only one place in this world, and that is from the Farm Seed Specialist Salzer.

If You Will Cut This Out and Send It with 5 cents postage, to the John A. Salzer Seed Company, La Crosse, Wis., you will get a sample of GRASS AND CLOVER MIXTURE and their mammoth catalogue free.

#### Forestry Notice.

Those wishing to receive a share of the free distribution of seedling forest trees by the State Forestry Department can make application at any time previous to March 1, 1895. The report of this department is now in the hands of the State Printer and will be furnished applicants as soon as printed. Owing to a lack of sufficient printing fund they may not be finished before the last of January. County papers please copy.

Commissioner of Forestry.

Ogallah, Kas.

#### Publishers' Paragraphs.

One of the fine seed catalogues published for 1895 is from the old established house of Des Moines, Iowa, known as Livingston's Seed Store. It will be sent on application by letter or postal. Address Livingston's Seed Store, Des Moines, Iowa.

We are in receipt of the catalogue of the Iowa Seed Co., of Des Moines, one of the finest seed catalogues of the year. It is a book of practical and complete information to the seed planter, and is gotten up neatly and concisely in the highest style of the printer's and lithographer's art. Any of our readers can obtain a copy by merely sending a postal card to the company and mentioning the KANSAS FARMER.

With pansies on the first page and snowball asters on the last, with a picture of her place of business on the first inside page and her own picture on the last, and all tied with a dainty blue ribbon, Miss C. H. Lippincott, of Minneapolis, Minn., the lady dealer in flower seeds, presents to her patrons one of the most attractive seed catalogues ever issued. Her business is said to be a success, her seeds to grow and her patrons to be happy.

McBeth & Kinnison, of Garden City, Kas., who have been liberal advertisers in the KANSAS FARMER for several years, desire to call attention to their new advertisement, on 16th page. They were among the original business men of Garden City when that town began its wonderful career, and by careful management and strict integrity have acquired the reputation of being among the most reliable of business men. They make a specialty of alfalfa seed, and being located in the midst of the best alfalfa region in the world, they are able to furnish the best seed for the cheapest price. They are shipping seed to all the States in the Union, they inform us, and those dealing with them may confidently expect the purest seed to be obtained in their line.

THOSE COLORADO HOMES.—The reader's attention is directed to the advertisement, in this issue, of "cheap irrigated lands in the San Luis valley," and it may be well to notice what Kansas men are interested in the lands. John Richey, of McPherson, is a man of high character, who served one term in the State Senate and two terms as Treasurer of his county. Mr. Motz is equally well recommended by his neighbors as a man of integrity and honor, while S. M. Scott, is too well known to need any introduction to our readers. He was State Lecturer of the Alliance for four years and is now President of the State Board of Public Works. His name is familiar in nearly every school district of the State. Such connections with the enterprise commend it to all.

A GARDEN SEED DRILL AND CULTIVATING ATTACHMENTS.—Mr. Samuel B. Green, Horticulturist of the Minnesota Experiment Station, in a recent bulletin speaks of this as a very desirable implement for those who have a vegetable garden, as the change from the drill to cultivator, or the other way, can be made very quickly. For working the soil it has hoes, plows, rakes and cultivator teeth of good shape and size. As a seeder the agitator is sure to keep the seed moving. The depth of covering can be easily regulated. The wheel and coverer cover the seeds and firm the soil over them. The marker is well adapted for giving a clean track for successive rows and is easily changed to different width. A convenient cut-off is provided to use when turning at the ends of rows to prevent loss of seed. This and eight other styles of improved hand seeding and cultivating implements are made by Ames Plow Co., of Boston and New York. Send for their catalogue and learn all about them.

#### Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uteomahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

#### Where Crops Never Fail.

Good irrigable farms in Colorado never fail to produce big crops. We have them for sale from \$10 per acre up. First year's crop will pay for farm. Home market.

Address THE CENTRAL TRUST CO Denver, Col.

**MY HUSBAND** Canteen how you do it.

\$50 Kenwood Machine for - \$22.00  
\$50 Arlington Machine for - \$19.50  
Standard Slinger - \$5.00, \$11.00  
\$15.00, and 27 other styles. All at  
wholesale prices. We pay freight ship any-  
where on 30 days free trial, in any home  
without asking one cent in advance. Buy  
from factory. Save agents large profits.  
Over 100,000 in use. Catalogue and testi-  
monials free. Write at once. Address  
CASH BUYERS' UNION,  
159-164 West Van Buren St., 8-64, Chicago, Ill.

Since 1861 I have been a great sufferer from catarrh. I tried Ely's Cream Balm and to all appearances am cured. Terrible headaches from which I had long suffered are gone.—W. J. Hitchcock, late Major U. S. Vol. & A. A. Gen., Buffalo, N. Y.



## CATARRH

ELY'S CREAM BALM opens and cleanses the Nasal Passages, Allays Pain and Inflammation. Heals the Sores, Protects the Membrane from colds, Restores the Senses of Taste and Smell. The Balm is quickly absorbed and gives relief at once.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 56 Warren Street, New York.

#### LIVE STOCK AUCTIONEERS.

J. M. HOSMER, Live Stock Auctioneer, Maryville, J. Mo. Fine stock a specialty. I respectfully solicit your business and guarantee satisfaction. Terms reasonable. Secure Cates early.

F. M. WOODS, Live Stock Auctioneer, Lincoln, Neb. Refer to the best breeders in the West, for whom I do business. Prices reasonable and correspondence solicited.

JAS. W. SPARKS, Live Stock Auctioneer, Marshall, Mo. Sales made everywhere. Reference to the best breeders in the West, for whom I have made sales. Catalogues compiled and printed. Terms reasonable.

ELI ZIMMERMAN, Hiawatha, Kansas, Live Stock and General Auctioneer. Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

S. A. SAWYER, FINE STOCK AUCTIONEER—N. Manhattan, Riley Co., Kas. Have thirteen different sets of stud books and herd books of cattle and hogs. Compile catalogues. Retained by the City Stock Yards, Denver, Colo., to make all their large combination sales of horses and cattle. Have sold for nearly every importer and noted breeder of cattle in America. Auction sales of fine horses a specialty. Large acquaintance in California, New Mexico, Texas and Wyoming Territory, where I have made numerous public sales.

## THE STRAY LIST.

FOR WEEK ENDING JAN. 9, 1895.

Sumner county—Chas. Sadler, clerk.

MARE—Taken up by H. S. Jerome, in South Haven tp., P. O. South Haven, December 22, 1894, one mare, 12 years old, sixteen and one-half hands high, dark brown, little white in forehead. MARE—Taken up by J. D. Hilbert, in Grove tp., December 10, 1894, P. O. Mulvane, one mare, 9 years old, sorrel, bald face, white stripe on each side of neck, white on left side and hip, four white feet; valued at \$20.

Cherokee county—P. M. Humphrey, clerk. THREE MARES—Taken up by I. Kiesel, three mares, one black, fourteen hands high, and one dun; no marks; valued at \$10 each.

Chautauqua county—G. W. Arnold, clerk. TWO HORSES—Taken up by T. Gregory, in Belleville tp., P. O. Chautauqua, December 22, 1894, one bay horse, 5 years old, and one gray horse, 7 years old; no marks or brands.

Smith county—A. C. Smith, clerk.

HORSE—Taken up by A. J. Bass, in Lane tp., P. O. Athol, December 18, 1894, one horse, 900 pounds, 3 years old, bright bay, white star in forehead; valued at \$15.

Lyon county—C. W. Wilhite, clerk.

STEER—Taken up by John A. Williams, in Emporia tp., November 24, 1894, one three-year-old red steer, no marks or brands visible; valued at \$15.

Greenwood county—J. F. Hoffman, clerk.

STEER—Taken up by Mrs. W. T. Prather, in Becheor tp., December 11, 1894, one red steer, 2 years old, branded W on left hip, both ears cropped; valued at \$20.

Thomas county—Jas. M. Stewardson, clerk. SIX HORSES AND TWO MULES—Taken up by I. Shallenberger, in Hale tp., P. O. Brewster, December 20, 1894, one sorrel horse, 12 years old, 1,300 pounds, light mane and tail; one bald-faced sorrel horse, 6 years old, 1,300 pounds; one bay horse, 10 years old, 1,300 pounds, no marks or brands; one bay horse pony, 7 years old, 900 pounds, white on left hind foot; one dark bay mare, 7 years old, 1,300 pounds, no marks or brands; one bay mare, 8 years old, 1,200 pounds, wire scar on left front foot; one bay mare mule, 8 years old, leather halter on; one bay horse mule, 8 years old, leather halter on.

COW—Taken up by H. Hartline, in Smith tp., P. O. Rexford, October 10, 1894, one white dehorned cow, 6 or 7 years old, branded H on left side; valued at \$10.

FOR WEEK ENDING JAN. 16, 1895.

Bourbon county—G. H. Requa, clerk.

TWO HEIFERS AND BULL CALF—Taken up by J. J. Bollinger, in Scott tp., one red yearling heifer, one veal or brindled heifer, 1 year old, marked with clef in right ear, and one black brindled bull calf; total value, \$12.50.

FOR WEEK ENDING JAN. 23, 1895.

Labette county—J. F. Thompson, clerk.

MULE—Taken up by A. D. Sanders, in Hackberry tp., December 13, 1893, one mule, fourteen hands high, brown, no marks; valued at \$20.

Bourbon county—G. H. Requa, clerk.

HORSE, MARE AND COLT—Taken up by A. C. Fulton, Scott tp., January 11, 1895, one dapple gray horse, sixteen hands high, about 6 years old; valued at \$20. One dark brown mare, fifteen hands high, 7 or 8 years old, white hind feet; valued at \$20. One sucking colt, nearly same color as above-described mare; valued at \$5.



Given Away

If it does not save its cost on one lot of hogs.

Martin & Morrissey Mfg. Co., OMAHA, NEB.



## The Home Circle.

### To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

### THE SHELL.

A shell upon the sounding sands  
Flashed in the sunshine, where it lay;  
Its green disguise I tore; my hands  
Bore the rich treasure trove away.

Within, the chamber of the pearl  
Blushed like the rose, like opal glowed,  
And o'er its domes a cloudy swirl  
Of mimic waves and rainbows flowed.

"Strangely," I said, "the artist-worm  
Has made his palace-lair so bright!  
This jeweler, this draftsman firm,  
Was born and died in eyeless night,

"Deep down in many-monstered caves  
His miracles of beauty thrive;  
Far from all light, against strong waves  
A Castle Beautiful he wove.

"Take courage, Soul! Thy labor blind  
The lifting tides may onward bear  
To some glad shore, where thou shalt find  
Light, and a friend to say, 'How fair!'"

### LIFE'S CONTRASTS.

Perfume of roses and warbling of birds,  
Sweetest of sweet June days,  
Kindliest glances and tenderest words,  
Shadiest woodland ways;  
Murmuring brooklets and whispering trees,  
Drowsiest song of the soft humming bees;  
Hope, love, trust, peace  
And besides—  
I and he, he and I.

Wintry winds rustling the fallen, dead leaves,  
Sullen and lowering the sky,  
Creeping mists hiding sad earth as she grieves,  
Mourning for days gone by;  
C'raets foaming 'neath bare, leafless trees,  
Chilly blasts sweeping o'er lone, barren leas,  
Heartache, doubts, tears,  
And besides—  
I alone, only I. —Temple Bar.

### HOW TO SHOOT WELL.

#### Hints for Women Who Would Handle Rifle or Revolver.

There are some secrets or rather points in regard to shooting a revolver that are worth while considering.

Possibly, however, the tiger in the jungle and the bear in the mountain as targets do not allure you; but you may have the misguided midnight burglar to contemplate. It may be well just here to remark, in parenthesis, that the efficacy of pistols in the jungle is open to doubt, but the burglar is always with us, and we ought to know the very best and most infallible way of shooting him.

The following hints are given on the authority of a gentleman who is an expert shot:

How to stand and how to hold the weapon is of greatest importance. The body must be balanced equally on each foot (even if your burglar escapes meanwhile) slightly facing the target, and the arm held perfectly straight out. The arm should never be bent. The hand grasps the revolver high on the butt, with the thumb well around to the inside and straight, and the trigger finger entirely free. This throws the work of holding the revolver wholly on the outer fingers. The object of this position of the hand is to



CORRECT POSITION FOR SHOOTING.

get the barrel in exact line with the arm when extended, thus bringing the target, the sights and eye in one line. This position also minimizes the effect of trembling and rotating the arm. The weapon being properly aimed it should be held there, and the trigger very gently and steadily pressed. The mind should forget the possibility of an explosion, and the whole attention devoted to holding the sights of the revolver in exactly the proper position on the target.

Above all things should the shooter keep up steady pressure with the trigger finger, and on no account yield to the temptation to add just a little more force suddenly. The technical terms expressing these qualifications are "good holder," and "good trigger pull."

The revolver is peculiarly an American weapon. The Americans have made scores never approached by any other nation. Not only are they first but they occupy every position between that and the twentieth. The weapons in use are the quick firing or self-cocking and single action. What the self-cocker gains in rapidity of action is more than lost by lack of accuracy. Still there are records where one has been able to put five shots in a space of one foot square at a distance of thirty-six feet in four-fifths of one second. Such work is exceptional.

There is a certain class of individuals who cannot put three bricks in line on a table. Such of course can never learn to shoot. Further, the sight of a pistol may send the cold shivers down your back. In this case also, you will have something to overcome before you can become an expert shot.

"I always expect them to go off whether they are loaded or not," I overheard a young girl say recently, speaking of pistols. "I am quite sure they can go off without regard to cartridges."

### HOUSEHOLD NOTES.

RUB spoons with salt to remove egg stains.

PAILS and tubs saturated with glycerine will not shrink.

THE latest clothes prop for the back yard is a slender iron pole.

TIGHT collars are apt to produce a permanent swelling of the throat.

AFTER knives have been cleaned they may be brilliantly polished with charcoal powder.

DISCLOTHES should be washed out in hot, clean soapsuds daily and boiled in soda once a week.

UPON curtains the principal part of the embroidery is now placed upon the turnover portion of the top. This has much the effect of a valance when well overlaid.

ARUG made of old ingrain carpet, cut bias and sewed on to ticking or denim with carpet thread, is said to last ten years and grow softer and prettier every year. The preferred width of the bias strips is one inch, and they should be sewed—by the middle—on the foundation, at spaces a quarter of an inch apart.

FOR a dry shampoo the hair should be loosened, then every inch of the scalp should be gently rubbed until all the dust and dandruff are loosened. The hair should be parted in different parts of the head and brushed with a very stiff little brush until the scalp is clean, and the hair also. Then it should be rubbed with alcohol or some hair tonic and the snarls gently combed and brushed out.

FOR shampooing get five cents' worth of powdered Castile soap, the same quantity of borax; add to them a tablespoonful of alcohol, the beaten yolk of an egg and a pint of hot water. Put this in a bottle and cork. There is sufficient for three or four shampoos, as it only takes a small quantity applied to the scalp to cause a good lather, which must, however, be carefully rinsed out with several basins of warm water.

### Girlhood's Charm in Woman.

The woman who keeps the simplicity of her girlhood, its generous impulses and quick sympathies, and who adds to her natural gifts the enlargement of study and the crown of experience, is always at her best and never past it. When the exterior attractions of form and color diminish and depart, as they mostly do, the radiance of our inner illumination will more than compensate their departure. But, in order that this should be so, her moral must equal her intellectual gain. She must be willing to learn, not only her own powers, but her own defects also, and to court the good influences which can help her to escape from the delusions of sense and the fatal tyranny of self-consciousness. She must discard the petty measures of vanity and self-seeking, and learn to love her race, her country and the humanity which she should help to adorn.—Julia Ward Howe.

### ELECTRIC TEA KETTLE.

#### New Application of Modern Progress to Drawing-Room Uses.

A firm of London silversmiths has produced an electric tea kettle, which is said to have considerable vogue in London drawing-rooms.

The primary and very appreciable attraction of the electric kettle is its absolute cleanliness. There are, of course, no fumes of any kind from the electric light which is used to produce the heat, and therefore the process of using the kettle is absolutely cleanly. Nor is the simplicity of the new kettle and its method of use any less admirable than its perfect cleanliness. It is only necessary to attach the cord in which the electric wires are inclosed to any connection which may be fitted up in a room for lighting purposes, and the apparatus is in working order in a moment. The kettle, which is a very shapely and agreeable production, is made in such a way that when it is filled with water and placed upon the stand in which is the electric lamp, it can be tilted up and the water poured from it without the necessity of removing it from the stand, and by this means the



AN ELECTRIC TEA KETTLE.

risk of scalding the hands or of spilling the water is avoided. The lamps with which these kettles are fitted are of varying powers, ranging from eight to fifty-candle power, the most useful size, which is generally recommended for ordinary purposes, being of sixteen-candle power. This size is very serviceable and economical in usage, and capable of affording all the heat which is required under ordinary circumstances. A lamp of this strength is amply sufficient to keep boiling water hot as long as may be necessary, while one of fifty-candle power will boil a pint of quite cold water in twelve minutes, while to go to the other extreme one of even eight-candle power will suffice to keep water hot.

### GOOD MILK DINNER.

#### How a Really Good Table May Be Set on a Vegetable Diet.

Those people who are skeptical as to the possibility of setting a really good table on a vegetable diet should examine the following menu as described in the New York Recorder:

In this good, substantial meal meat is omitted, vegetables taking their place, all well cooked, and pure milk is one of the principal ingredients. Cereals, corn, potatoes, potcheese, good home-made bread and creamery butter, with a dessert of bread or custard pudding, forms this interesting menu. For the first course, oatmeal, rice or small hominy carefully prepared is the main dish, and served with cream and powdered sugar.

For the piece de resistance, corn prepared with milk. To prepare this dish to perfection, the corn should be freshly and carefully picked, and all the ears should be full grown and tender. After it has been stripped of its

silk, split each row of kernels with a sharp knife, then cut off the outer edge of the entire ear, after which with the point of a knife scrape out all that remains, leaving the dry cob. Cover with fresh sweet milk and boil for fifteen minutes. Remove from the fire and season with butter, pepper and salt to the taste.

Potatoes can be scalloped, and when done to a turn form a palatable dish. Or they can be creamed and appear on the table in all their snowy whiteness. Not everyone knows the best way to scallop potatoes. To make the dish all that is claimed for it, cut cold boiled potatoes into small slices. Fill a pudding dish with layers of these thin slices, each sprinkled with flour and seasoned with pepper and salt, and plentifully supplied with bits of butter. When the dish is full pour over the whole one pint of thick rich cream. Dredge the top with flour, cover over with bits of butter. Bake in a moderate oven for a full hour. When cooked the top should be brown, and all beneath the top layer rich, creamy, delicious.

The dessert for this milk dinner should be bread or custard pudding, which, if rightly made, is excellent in its way. Pitchers of rich milk should grace each corner of the table. Potcheese made into small balls and rivaling even the Neufchatel cheese, with crackers and cream coffee, is the charming ending of this palatable meal.

## Half the Money

spent for harness and shoes could be saved if they were treated right. Whether leather lasts or not depends on the care it gets.

### Vacuum Leather Oil

Is the care-taker.

25c. worth is a fair trial—and your money back you want it—a swob with each can. For pamphlet, free, "HOW TO TAKE CARE OF LEATHER," send to VACUUM OIL CO., Rochester, N. Y.

**GEARHART'S FAMILY KNITTER.**  
Knits a stocking heel and toe in ten minutes. Knits everything required in the household from homespun or factory, wool or cotton yarns. Most practical knitter on the market. A child can operate it.  
**STRONG, DURABLE, SIMPLE, RAPID.**  
Satisfaction guaranteed. Agents wanted. For particulars and sample work, address:  
**J. E. GEARHART, Clearfield, Pa.**

## FITS CURED

(From U. S. Journal of Medicine.)

Prof. W. H. Peeke, who makes a specialty of Epilepsy, has without doubt treated and cured more cases than any living Physician; his success is astonishing. We have heard of cases of 20 years' standing cured by him. He publishes a valuable work on this disease which he sends with a large bottle of his absolute cure, free to any sufferer who may send their P. O. and Express address. We advise anyone wishing a cure to address, Prof. W. H. PEEKE, F. D., 4 Cedar St., New York.

## FOR SALE! FARMS WAY DOWN.

I have excellent farms in Rooks county, Kansas, for sale, way down below their value. Will sell on contract for one-tenth down and one-tenth yearly, or will give deed if one-fourth or more is paid down. Write for particulars and state how much you can pay down and how you want the balance of your money. I also have several unimproved farms in central Nebraska and one large body of over 7,000 acres. I have a finely improved ranch of 1,440 acres in Rooks county, Kas. Any or all of above will be sold very low, or might exchange part or all of it for good improved property in Chicago or vicinity. Address

**B. J. KENDALL,**

610 Masonic Temple, CHICAGO, ILL.

## Rheumatism, Neuralgia, Sciatica, Backache.

## ST. JACOBS OIL

**SAFE, SURE, PROMPT.**

INCORPORATED OCTOBER 29, 1894.

LOCATION, 1103-1105 NORTH FOURTH AVENUE.

### HOME OF REDEEMING LOVE,

WICHITA, KANSAS.

Object.—To provide a home for penitent fallen women, and to rescue them from lives of shame; to reclaim, educate and instruct them in industrial pursuits, and to restore them, when possible, unto their homes and parents. BENEVOLENT FRIENDS, this institution is non-sectarian and non-salaried—each worker freely doing her part to "rescue the perishing, lift up the fallen and tell them of Jesus, the mighty to save." God is blessing the work and good is being done. Now, we want you to "help just a little" and enable us to do still greater good. The erring daughters must be reclaimed—they are more often sinned against than sinning. The Savior said, "Neither do I condemn thee; go in peace and sin no more." Address REV. LYDIA A. NEWBERRY, WICHITA, KAS.



## The Young Folks.



Now, listen, my dears, pray what do you think? You will scarcely believe what I say, When I tell you this wonderful thing—that I lunched With a king and a queen to-day.

The palace was—well, it was rather plain, And only a few feet square, And some bread and ginger cake, milk and jam Were all of the royal fare.

The butler was grand in a necktie white, And grave as a judge could be; But he had four feet, and looked very much Like our own old Jock to me.



THE BUTLER.

The king was dressed in a gorgeous robe, And the queen's was exquisite, And they both had beautiful golden crowns That didn't exactly fit.

Their manners were dignified, grave and grand, Their appetites royally nice, Though the queen got her pinafore stained with jam, And his majesty choked himself twice.

And after the luncheon (the cares of state Had tired her out, mayhap) The queen unexpectedly fell asleep With her curly brown head in my lap.



THE QUEEN IS SLEEPY.

"For she is so little, you see," the king explained in a grave aside, "She doesn't remember her part very well!" And he looked much mortified.

Till quite forgetting his rank, he, too, Sat down on the nursery floor, And played with a top and a train of cars For fifteen minutes or more.

Then fearing my visit might last too long—For he seemed to be bored, I thought, And the queen woke up in a fractious mood—My call to an end I brought.

I courtesied low to the king, and kissed Her majesty's hand so white, But they sprang on me with a laughing shout And hugged me close and tight.

The queen's gold crown slipped over her neck, And the king's from his head was lost, And the royal cheeks were red as a rose, And the royal locks were tossed.

The royal robes from their shoulders fell, And their royal dignity fled, And "Wasn't it fun, mamma?" they cried, My own little Trix and Ted!

—Margaret Johnson, in Youth's Companion.

### GLASS SWALLOWERS.

All of Them Are Fakirs or Conjurors in a Small Way.

There are a number of men who go around the country affecting to be able to swallow bits of glass, pebbles, small shells and so on. It is singular, but most of those who see these tricks performed really believe that the articles are actually swallowed.

In reality, in this case, as in many others, it is the "quickness of the hand that deceives the eye." A man who at a dime museum actually swallowed, during fifteen to twenty performances a day, bits of glass and tacks would be soon in his grave.

These men are conjurers in a small way, and their bill of fare is disposed of in another way than swallowing. The trick is for the most part deftly executed—the performer imitates the act of swallowing to something like perfection, the apparent movement of the throat being well done.

Many of these men pretend, in order to increase the mystery, that immedi-

ately after they have done the trick they swallow some mysterious mixture, only known to themselves, which acts as a dissolvent and digester. But this exists in imagination only.

A friend of the writer, who is a physician at one of the hospitals in a large city, was not long ago consulted by one of these alleged champion swallowers. This same man, who pretended to eat dozens of things daily, was in a terrible state of fright, because he had in reality, by a slip, swallowed two tacks.

Of course, this is conclusive evidence that he did not actually swallow the articles which he pretended to find delight in eating. But people who can take pleasure in seeing a fellow being swallow tin tacks deserve to be fooled. —Golden Days.

### CAT GOES TO CHURCH.

One of the Harmless Sources of Pride in a Michigan Village.

Jack is the name of a Maltese cat of the Sir Thomas variety, whose home is in the little town of Milan, a sort of suburb to the city of Ann Arbor, Mich.

Jack's penchant is going to church every Sunday. He is a good Presbyterian, and turns up his aristocratic Thomas nose if any of the family tries to tempt him into any other than the Presbyterian church.

Jack's church-going proclivities date from a period about three years ago. His mistress started to church one Sunday morning, and not until she was at the door of the edifice did she observe that Jack was trotting along at her heels. It was late, and the organ was pealing out the first hymn of the service, so to turn back was out of the question.

"Will you be a good boy, Jack, if I take you in church with me?" and Jack nodded as though he understood.

He was picked up and concealed under his mistress' cloak and carried into the church and deposited on a seat in the pew. There he sat quietly and demurely throughout the entire service, purring to himself in a perfectly happy and contented manner and as if he enjoyed the novelty. Unlike many of the deacons Jack did not once go to sleep, either, but remained awake and alert until the benediction was said.

The services over Jack was again hidden away under his mistress' wrap and carried out of church and no one knew that he had been present.

Long before the hour for going to church came around, the following Sunday, Jack washed himself, licked his feet in a more than usually careful manner, and strutted around his mistress, brushing against her skirts and purring.

When she left the house to go to church Jack followed at her heels, and, as on the Sunday before, he was carried to his place in the pew under the protecting wing of his mistress' cape.

From that Sunday until the present day Jack, every Sunday, has gone to church and taken his accustomed place in the family pew. Nor does he have to be carried in any more. He walks in now just like any regular attendant, jumps into his seat, and settles himself down in a comfortable position and purrs the sermon out, blinking his eyes wisely whenever the pastor makes a hit.

### Involuntary Trip to Europe.

Two Delaware boys have just returned from an involuntary voyage to Europe. They went out fishing in the Delaware river, and, a fog coming up suddenly, could not find their way to shore. After drifting for two hours a storm came up and the boat was driven before it all night. When morning came and the storm ended the boys were out of sight of land and with no idea where they were. So they prudently made no effort to go anywhere, and finally were rewarded by the sight of a steamer. As it came closer they hoisted signals of distress, and were picked up by a vessel bound from Philadelphia to Hamburg. And the boys were carried to Hamburg, because the steamship only sighted other vessels at a distance. Of course the boys worked their passage, and did so well that when they returned to Philadelphia on the same steamer the captain paid them a small sum for their services.

### The Difference.

Small Tom had a thought last night As he sat down to sup; Said he: "My pa writes stories down, While builders put 'em up."

Highest of all in Leavening Power.—Latest U. S. Gov't Report

# Royal Baking Powder

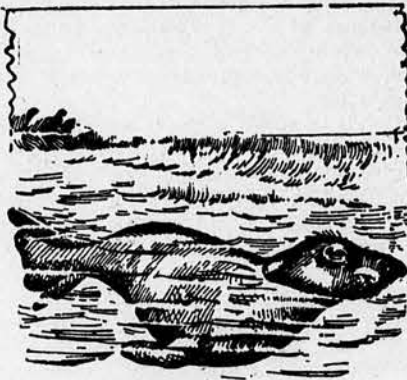
## ABSOLUTELY PURE

### THE SEA ELEPHANT.

Largest Representative of the Seal Species Is Almost Extinct.

The California sea elephant is an animal with a fearfully long Latin name, but a very short stay on this earth, writes W. T. Hornaday in St. Nicholas. It is the largest of all the seals, its average length when fully grown being from twelve to fourteen feet, while it sometimes reaches the astonishing length of twenty-two feet, including the hindflippers. It is still an open question whether this animal is of the same species as the sea elephant of the Antarctic ocean. Our animal, like the other, derives its popular name from the lengthened, tapir-like proboscis, or snout, of the old males, which sometimes projects six inches or more beyond the end of the muzzle.

The hair is exceedingly short, very stiff and harsh, and when clean and dry is of a dusky yellowish color. This species once inhabited about two hundred miles of the coast of California, from Point Reyes south, but it has



CALIFORNIA SEA ELEPHANT.

been practically exterminated for the sake of its oil. In 1884 Mr. C. H. Townsend visited Santa Barbara island for the express purpose of preserving for the National museum the skins and skeletons of what were supposed to be the last survivors of the species, then about to be killed by a seal hunter for their oil. The result was that at the eleventh hour a number of very valuable skins and skeletons were saved for the zoological museums of the world.

About the same time an enterprising collector actually captured five young specimens alive and shipped them to New York, Baltimore, Philadelphia and Cincinnati—which was the first and only time the species was ever seen alive in the eastern United States, and will doubtless be the last. But I am glad to be able to state that these seals are not absolutely extinct, for a short time ago Mr. Townsend assured me that a few individuals are yet somewhere south of San Francisco, in

a place that the seal hunters know not of; and, in the language of Jefferson's Rip Van Winkle: "May they live long and prosper."

### The Teeth of a Rat.

The teeth of rats are kept sharp by a very peculiar provision of nature. Like those of the beaver, the outer edge of the incisors is covered with a layer of enamel as hard as flint, while the under side is much softer. The layers of enamel on the under side, therefore, wear away much faster than those on the upper surface, and a keen cutting edge is always presented.

### Beware of Ointments for Catarrh that Contain Mercury.

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten-fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.

Sold by Druggists, price 75c. per bottle.

Best equipped, most thorough business training school in the Southwest. Wichita Commercial college, Y. M. C. A. building.

I desire to say that I have been a constant sufferer for many years with weakness of my eyes to an extent that I was unfitted for any kind of work, especially work requiring constant use of the eyes. I tried several times to have glasses fitted by eminent oculists, but found no relief. I finally called on Mr. Chas. Bennett, 713 Kansas avenue, Topeka, Kas., who fitted me with glasses, since which time I have had no trouble whatever with my eyes. Before wearing the glasses fitted by Mr. Bennett I was also a constant sufferer from very severe headaches. Since wearing them I have been entirely free from headaches. I can heartily recommend him to all who may be suffering with their eyes, or from neuralgia.

W. L. BRIGHT, Midland College, Atchison, Kas.

WILL YOU distribute Circulars and sample for use? No compensation. Salary and expense to travel. Send stamp. ADVERTISING BUREAU, 447 6th Ave., NEW YORK CITY.



### PIERRE S. BROWN'S School of Business and Shorthand

We make specialties of rapid calculating and simple and concise methods of recording and posting as they are used in actual business. Commercial course, six months, \$30; Shorthand and Typewriting, six months, \$40; English course, three months, \$10. Bayard Bld., 1212-14 Main St., Kansas City, Mo.

## Dull and Bilious.



Sleepless nights, backache, weakness—all result from a disordered condition of the Liver or Kidneys. To be strong and vigorous your Liver must be healthy. Wonderful success has always attended the use of

### Dr. J. H. McLean's Liver and Kidney Balm.

It cures thoroughly all ailments of the Liver, Kidneys and Bladder, Female troubles, Rheumatism and Bright's Disease. For sale by Druggists at \$1.00 per bottle.

THE DR. J. H. MCLEAN MEDICINE CO., ST. LOUIS, MO.



# KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Wednesday by the  
**KANSAS FARMER COMPANY.**OFFICE:  
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.

Address **KANSAS FARMER CO.,  
Topeka, Kansas.**

## ADVERTISING RATES.

Display advertising, 15 cents per line, agate, (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of *KANSAS FARMER* free.

Electros must have metal base.

Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free during the publication of the advertisement.

Address all orders—

**KANSAS FARMER CO., Topeka, Kas.**

The cheapest and best way to break up monotony and to make life and home enjoyable is to provide plenty of good reading. Take the county paper; take a State political paper; take the *KANSAS FARMER*; take a good monthly magazine—take these, if no more.

Every farmer in Kansas, and especially the breeders and stock-raisers, should have the greatest live stock journal in the world, the *Breeder's Gazette*, of Chicago, price \$2 a year. We make a special offer of it and the *KANSAS FARMER*, both papers one year, for only \$2. Subscribe now through this office.

A subscriber suggests that we ask Eli Benedict, of Medicine Lodge, for a report of the land subsoiled two or three years ago. No doubt many readers will be interested and instructed by an account of the effect; on the first and on each subsequent crop. Mr. Benedict will confer a favor on many by reporting as requested.

By the time this paper reaches its readers, Hon. Lucien Baker, of Leavenworth, will have been elected United States Senator to succeed to the place now occupied by Senator John Martin. This election is for six years, this being the regular time of election for the full term. Senator Baker was a "dark horse" candidate of the anti-Burton forces of the Republican members of the Legislature. Those who have watched the course of the Senatorial fight have at least to remark that politics take unexpected turns. Senator Baker is a man of ability and of clean personal character. He has been an active advocate of the resubmission of the prohibitory clause of the constitution, and has not been always a "strictly in line" worker in his party.

The Australians have long been greatly troubled to know what to do with their rabbits. There were originally no rabbits in that country, but some English settlers took a few pairs with them, possibly as reminders of the old home. But in the climate of Australia they became abnormally productive and have proven a great menace to the farmer. Thus far the only effectual protection has been wire netting fine enough to prevent going through the meshes, high enough to prevent jumping over, and let into the ground deep enough to prevent burrowing under. Hundreds of miles of this netting have been erected, the government encouraging it by financial aid. But now the Australian thinks he has found a better solution for the difficulty. He would slaughter the rabbits and send them to England to feed the men and women of the mother country. Much stress is laid on the extra size and flavor of the Australian rabbit, and it is intimated that instead of being an intolerable pest, his rabbitship may become a valuable source of revenue.

## STATE BOARD OF AGRICULTURE.

The peculiar composition of the Kansas State Board of Agriculture has been the subject of considerable comment and some adverse criticism. The latter has been chiefly to the effect that it "is too much of a closed corporation," "not broad enough," "not representative of all the State nor of some of its most important interests." It has been almost universally conceded that its work has been well done, and it is also true that the reports of our Kansas board are universally acknowledged to be the best State agricultural reports published in the entire country. The non-political character of the work of the board has been highly commended by all observers.

Notwithstanding these facts, propositions have been made to radically change the present order, and by legislation to establish a Department of Agriculture which shall be comprehensive of every branch of farming. To this end it has been suggested to abolish the present board and to make the office of Secretary of Agriculture either elective or appointive by the Governor.

Either of these plans would subject the office, which is now non-political, to all the vicissitudes of politics, and instead of leaving the selection of Secretary as now, entirely to farmers, would give town people the same undue influence in the selection of candidates for and the election of incumbents to this office as they have in the case of other State offices. This might not be a serious evil now, while about two-thirds of our people are farmers, but would almost inevitably result in the selection of a city politician when in the development of the State the preponderance of voters are found in towns and cities.

But it is worth while to examine and see whether the present laws pertaining to the constitution of the board are not broad enough to serve every desirable purpose. The board now consists of twelve members and a large number of delegates, the law providing that each county which maintains an agricultural society, and which society shall have made certain reports to the Secretary of the State Board of Agriculture, shall be entitled to send a delegate from its county agricultural society to the annual meeting of the board. Thus the farmers of every county may have a representative at every annual meeting and that representative or delegate has, for the time, all the rights and privileges of a member of the board.

The county agricultural society may hold a county fair and thus be a county fair association; it may hold farmers' institutes and thus be an institute organization; it may do both or either of these things and still be an agricultural society. But in any case, to be entitled to a delegate it must make the specified reports.

It appears, therefore, that the basis of representation on the board is broad enough so that every county can get in if its farmers or stock-raisers or fruit-growers so desire. If the stock interests are largely represented in any county society, such society may send a stockman as delegate. If the horticultural interests are strong it may send a horticulturist, and so throughout the list of rural pursuits. It is difficult to see how this can be improved by legislation; at least is it difficult to improve it without risk of incorporating undesirable features.

There is, however, need of a wider dissemination of the reports of the board. These reports vary from a mere leaflet in size, as in the case of some of the bulletins, to a large bound volume, as in the case of the biennial reports. The former have cost as little as 1 cent per copy, while the latter have cost as high as almost \$2 per volume. It is proper to state, in this connection, that, especially in the case of the large books, the price per copy is much less for large than for small editions. These reports were never so valuable as now, neither was their value ever so fully appreciated. Now there are 175,000 to 200,000 farmers in Kansas, every one of whom ought to have the benefit of these reports. The question of printing them and dis-

tributing them in so large numbers is a difficult one. It may be conceded that to furnish each of these farmers with copies of these reports would be too large an undertaking, and further, that there are farmers who would not appreciate these works if they could get them. But to supply the demand now made upon the Secretary will require larger editions than have yet been printed, and likewise a larger appropriation for postage and the labor of mailing than has heretofore been made. It would not be unreasonable to provide at least one copy for every four farmers in the State.

It may be desirable to refer additional work, such as the irrigation investigation, to this board, but it is doubtful whether the efficiency with which needed work is and can be accomplished would be promoted by changing the plan of organization.

In this connection, the remarks of Governor Morrill, in his first message to the Legislature, are timely:

"There is one interest in Kansas overshadowing all others, and that is the interest of the farmer. Whatever promotes that interest develops the State. He is a public benefactor who can, by arousing a new zeal, or by developing a better mode of farming, increase the productions of the soil; and one of the instrumentalities that have done much to elevate farming in Kansas is the State Board of Agriculture. The great service rendered to the State by its board of agriculture has long been recognized, not only in Kansas and America, but in foreign lands, in all of which its useful publications are sought and studied as the highest authority on matters pertaining to our condition, prosperity and progress. In fact, the high standard of its work and efficiency has become so well understood that older States, dissatisfied with abortive attempts to do a like work with political machinery, are now asking to be shown the methods by which Kansas has been able to accomplish such far-reaching results along these lines at such a minimum of cost. Much of the success of this department is undoubtedly due to its having been held aloof from party politics—maintained as a strictly non-partisan body, a servant of all the people alike; and the highest wisdom suggests its being kept on this basis.

"For doing the helpful work, which present conditions are making demand for in greatly increased volume, proper and generous provisions should be made in the line of clerical, printing and postage funds. This being the year in which the board is required by law to supervise the taking of our decennial census and to compile its returns for printing, the preparation, sending and returning of the necessarily extensive schedules for each township will demand a very considerable sum for postage and printing, and the extra clerical help essential for their compilation will, owing to increased population, probably cost more rather than less than the corresponding work on the census of 1885.

"Whatever enables this board to enlarge and extend its work benefits almost the entire population of Kansas, and it would be a wise policy to increase the appropriations in its behalf, even though it be done at the expense of some other less useful department."

Several persons have written the Secretary of the Kansas State Board of Agriculture for seeds, presuming that he has them for free distribution, as has the Secretary of the United States Department of Agriculture. Both postage and disappointment will be saved by remembering that the Secretary of the State Board has no seeds for distribution. A request addressed to either of the Kansas Senators or to the Representative of the district, at Washington, may bring the seeds.

"An experiment in feeding hogs is now in progress at our Agricultural college," says the *Industrialist*. There are used in the experiment twelve hogs, separated into three lots of four each. These lots are fed on ground corn, ground wheat, and ground Kaffir corn, respectively, the object being to ascertain the relative value of these feeds."

## A PROPOSED HOG FEED.

A correspondent inquires: "Can you give me any idea of the nutritive value of sugar cane—tropical—and its fattening qualities? It has been suggested that by the use of alfalfa, artichokes and sugar cane, pigs may be profitably grown while the sugar machinery on Southern plantations takes a rest."

The published analyses of sugar cane are those made with special reference to its value in the production of sugar. On page 336 of "Handbook of Experiment Station Work" (Bulletin No. 15), is given a brief table of analyses of sugar cane juice. While these show an average of about 14.2 per cent. of "solids" in the juice, most of which consists of sugar and glucose, and nearly all of which would, in an analyses with reference to feeding value, be classed as digestible carbohydrates and recognized as fat-formers, the portions of the cane not included in these analyses are largely fiber and indigestible, but they contain, nevertheless, considerable quantities of nutritive matter. Sugar cane, however, is not well adapted for fattening hogs, notwithstanding the large percentage of hydro-carbons it contains. The digestive apparatus of the hog is adapted to concentrated feeds, which sugar cane is not. Its value for hog feed would not be greatly different from that of corn fodder from which the ears had been removed.

The question then turns on the ability of alfalfa and artichokes to correct the characteristics of the cane. Green alfalfa contains a little over 17 per cent. of digestible solids and nearly 72 per cent. of water. Comparing this with the best of all hog feeds—corn and wheat—it will be seen that the latter are far more concentrated feeds than alfalfa. Thus, corn contains nearly 80 per cent. of digestible nutritive substances, and wheat is quite as concentrated. Analyses of artichokes are not at hand, but they will not be found to be much richer than the best of the roots and tubers of which analyses are abundant. Of these, potatoes may be cited, and they contain some 16 or 17 per cent. of digestible nutrients.

It will thus be seen that a ration composed of the three articles named, in whatever relative proportions, must be a very bulky one. It is doubtful if hogs could eat enough of them to thrive, certainly not enough to produce desirable results. Any of the three is good as an addition to a grain ration.

## GARDENHIRE GAME BILL.

The bill for the protection of game, introduced in the lower house of the Legislature by Representative Gardenhire, will, if passed, come nearer affording adequate protection to our rapidly-disappearing game supply than the present law, or any of the various acts which have preceded it. Some objection has been raised to the section which prohibits the sale and shipment of game, but it is contended that so long as game is allowed to remain a merchantable commodity, its total destruction is invited at the hands of market hunters and those who kill for profit. Our once bountiful supply of all kinds of small game has already dwindled until but a remnant is left, and the cause may be readily traced to professional hunters for the market. These persons are usually non-residents, who ship the game to Kansas City or Chicago, so that what should be a sport and a pleasure to our own citizens, is made an industry for profit by outsiders.

Another section of the bill which should commend it to the farmers is the clause prohibiting and providing a penalty for hunting without permission of the owner of the land. This bill was recommended by the Kansas State Sportsmen's Association.

During December and January many of our readers in renewing their subscriptions desire also to send for other periodicals and get them at a combination rate. If such will send us a postal card, asking for price on a given list of papers, we will be pleased to answer, and can furnish subscription to any periodical published in America, even if it is not in our regular clubbing list as advertised in our supplement.



## Course of Lectures to Farmers.

The Kansas State Agricultural college invites attention to a short course of lectures on practical topics pertaining to agriculture, horticulture, stock-raising, dairying, veterinary science, domestic economy, etc., which will be given free to all persons interested. The course begins Tuesday, February 5, 1895, and continues until Saturday, February 16, in accordance with the following program of lectures:

## TUESDAY, FEBRUARY 5.

- 1:30 p. m. President Fairchild, "Intellectual Growth in Farm Homes."  
3:00 p. m. Prof. Failyer, "Origin and Properties of Soils."

## WEDNESDAY, FEBRUARY 6.

- 10:30 a. m. Prof. Hitchcock, "Fungous Diseases of Field and Garden Crops."  
1:30 p. m. Prof. Popenoe, "General Considerations in Economic Entomology."  
3:00 p. m. Prof. Georgeson, "Origin and Characteristics of the Leading Breeds of Cattle."

## THURSDAY, FEBRUARY 7.

- 10:30 a. m. Prof. Lantz, "Agricultural Literature."  
1:30 p. m. Prof. Georgeson, "Principles of Selection and Breeding Live Stock."  
3:00 p. m. Prof. Mayo, "Some Hereditary Diseases of Animals."

## FRIDAY, FEBRUARY 8.

- 10:30 a. m. Prof. Hood, "Pumps and Power."  
1:30 p. m. Prof. Failyer, "Water for House Use."  
3:00 p. m. Prof. Popenoe, "Farm Insects."

## SATURDAY, FEBRUARY 9.

- 10:30 a. m. Prof. Willard, "Nitrogen in Some of its Relations to Agriculture."  
1:30 p. m. Prof. Hitchcock, "How Plants Obtain Their Food."

## MONDAY, FEBRUARY 11.

- 10:30 a. m. Prof. Mayo, "Parasitic Diseases of Animals and Their Treatment."  
1:30 p. m. Prof. Mason, "Propagation of Orchard Trees."  
3:00 p. m. Prof. Walters, "The Home Lot."

## TUESDAY, FEBRUARY 12.

- 10:30 a. m. Prof. Georgeson, "Principles of Feeding Live Stock."  
1:30 p. m. Prof. Kedzie, "Meats."  
3:00 p. m. Prof. Popenoe, "Beneficial Insects."

## WEDNESDAY, FEBRUARY 13.

- 10:30 a. m. Prof. Will, "Money." I.  
1:30 p. m. Prof. Graham, "Farm Accounts."  
3:00 p. m. President Fairchild, "The Farmer Makes His Farm."

## THURSDAY, FEBRUARY 14.

- 10:30 a. m. Prof. Mason, "Varieties of Vegetables for the Farm Garden."  
1:30 p. m. Prof. Mayo, "Contagious and Infectious Diseases—Their Cause and Prevention."  
3:00 p. m. Prof. Georgeson, "Necessity for Maintaining the Fertility of the Farm."

## FRIDAY, FEBRUARY 15.

- 10:30 a. m. Prof. Mason, "Soil Management and Irrigation in the Garden."  
1:30 p. m. Prof. Hitchcock, "Relation of Plants to Climate."  
3:00 p. m. Prof. Will, "Money." II.

## SATURDAY, FEBRUARY 16.

- 10:30 a. m. Prof. Georgeson, "Home Dairying."  
1:30 p. m. Prof. Mason, "Fruits for Home Use and Market."

In addition to the above evening lectures will be delivered by several prominent farmer-citizens, among them Hon. Harrison Kelley, of Burlington; Hon. C. B. Hoffman, of Enterprise; Hon. J. W. Bailey, of Baileyville; Mr. A. E. Jones, of Topeka, and others. Their dates and subjects will be announced in the local program. The college extends a cordial invitation to all comers, old and young.

The course is designed to benefit farmers—the older men, who are already in the thick of the fight, who are burdened with the cares and perplexities of active business farming, as well as the young men at work upon the farms, who find it impossible to take a more extended course at the college. It is believed that both old and young may learn something from this brief course which will aid them in becoming better and more successful farmers. Aside from the course itself, those who attend will have an opportunity to become fully acquainted with the appliances and methods of instruction in all departments of the institution. The library, laboratories, class-rooms, greenhouses, museums, orchards, farm, barns, silos and live stock are all accessible for inspection and study, and everything will be done by the faculty to make the course profitable and interesting to all who attend. There are no charges of any kind, and the expenses need not exceed the necessary traveling expenses and board and lodging while there. Room and board can be had with private families at from \$2.50 to \$4 a week.

All further information desired can

be obtained by addressing President Fairchild; and in order to perfect the necessary arrangements, all who propose to attend are requested to send in their name and address to him not later than February 1.

## Government Crop Report for 1894—Final Estimates.

**CORN.**—The corn crop of 1894, in rate of yield and volume, is one of the lowest on record. But one year of the past thirteen shows a lower rate, namely, the year 1881, when the yield was 18.6 bushels per acre. The production or volume, 1,212,720,052 bushels, is the smallest since the year 1874, when it was estimated at 850,148,000 bushels.

The estimated area planted to corn in 1894 was, in round numbers, 76,000,000 acres; but, owing to the drought and devastating winds, there were about 13,500,000 acres abandoned or cut for fodder only, leaving the area harvested for its grain value 62,582,269 acres.

**WHEAT.**—The rate of yield of the wheat crop of 1894 turned out to be greater than was indicated by the later reports as to prospects.

A revision of the earlier estimates of the breadth planted makes the area devoted to the crop of 1894 34,882,436 acres. The principal changes are made in the spring wheat areas, the reductions reported having been found greater than the facts warranted. The total product, as estimated, amounts to 460,267,416 bushels, which is 64,000,000, in round numbers, greater than the crop of 1893, and is greater by 10,500,000 bushels than the average for the ten years, 1880 to 1889, inclusive.

The farm value of the total product is \$225,902,025, against \$213,171,381 in 1893. The farm value per bushel is 49.1 against 53.8 cents last year, or a fall of 4.7 cents.

**OATS.**—The area devoted to oats this year (1894) is less by 249,480 acres than for 1893, losing a little more than was gained in the latter year over 1892. The loss in acreage has been more than compensated by the increase in yield, the average yield per acre being 24.5 against 23.4 last year. It will be seen that both yield and acreage approximate those of the year 1892 with remarkable closeness. The acreage of 1892 was 27,063,835; that of the present year, 27,023,553. The yield per acre in 1892 was 24.4 and the total product, 661,035,000 bushels, while the yield of this year is estimated at 24.5 bushels, and the total product at 662,086,928, or a little over 1,000,000 bushels more than for the former year.

The farm value of the crop for 1894 is \$214,816,920, that of 1893 was \$187,576,092, and that of 1892, \$209,253,611. The average value per bushel is 32.4 cents, a gain of 3 cents over the value of 1893. The average value per acre—\$7.95—is a gain of \$1.07 per acre over the same value last year, and closely approximates the average per acre for the five years, 1890 to 1894, which was \$7.99.

**OTHER CROPS.**—**Rye:** The area under rye for the year 1894 is estimated at 1,944,780 acres, against 2,038,485 last year. The product of this year (1894) is 26,727,615, against a product of 26,555,446 last year. The farm value of the product is estimated for 1894 at \$13,394,476, against \$13,612,222 in 1893. **Barley:** The area planted to barley in 1894 was 3,170,602, against 3,220,371 acres in 1893, product, 61,400,465 bushels, against 69,869,495 last year; value, \$27,134,127, against \$28,729,386 in 1893. **Buckwheat:** Area, 789,232 acres, against 815,614 in 1893; product, 12,668,200 bushels, against 12,132,311 last year (1893); value, \$7,040,238, against \$7,074,450 in 1893. **Potatoes:** Area for 1894, 2,737,973 acres, against 2,605,186 in 1893; product, 170,787,338 bushels, against 183,034,203 in 1893; value, \$91,526,787, against \$108,661,801 in 1893. **Hay:** Area under hay in 1894, 48,321,272 acres, against 49,613,469 in 1893; product, 54,874,408 tons, against 65,766,158 tons in 1893; value, \$468,578,321, against \$570,882,872 in 1893. **Tobacco:** Acres, 523,103, against 702,952 in 1893; product, 406,678,385 pounds, against 483,023,963 in 1893; value, \$27,760,739, against \$39,155,442 in 1893.

**PRICES.**—The average farm prices

of various agricultural products, per unit of measure, compared with those of last year (1893), are as follows: Corn, per bushel, 1894, 45.7 cents, against 36.5; wheat, 49.1, against 53.8; rye, 50.1, against 51.3; oats, 32.4, against 29.4; barley, 44.2, against 41.1; buckwheat, 55.6, against 58.3; potatoes, per bushel, 53.6, against 59; hay, per ton, \$8.54, against \$8.68; cotton, per pound, 4.6, against 6.99 cents; leaf tobacco, 6.8 against 8.1.

## American Berkshire Association.

The American Berkshire Association, at its annual meeting, held in Springfield, Ill., January 16, re-elected N. H. Gentry, Sedalia, Mo., President; Charles F. Mills, Springfield, Ill., Secretary, and A. J. Lovejoy, Roscoe, Ill., Treasurer. Messrs. N. H. Gentry, Sedalia, Mo.; Wills A. Seward, Budd's Lake, N. J.; W. E. Spicer, Harvard, Neb.; J. O. Terrell, Terrell, Texas, and M. K. Prine, Oskaloosa, Iowa, were elected as members of the Board of Directors.

Rules of entry were amended so that double entry fees will be required for animals recorded after they are two years old (instead of after one year old, as in force in 1894); requiring double entry fees on imported animals if not recorded within six months after importation, and permitting the registry, without fee, of sires and dams owned in England, of imported animals, providing said sires and dams are recorded in the English Herd Book.

A dividend of 10 per cent. was declared.

The action of the meeting on most matters was unanimous, but was not reached until after a good deal of friction. Sixty-three of the eighty-two shares of stock represented at the meeting were owned, or virtually owned, by Charles F. Mills, and to satisfy the demands of the breeders, the displacement of himself, his son and Mr. S. H. Gehlman from the Board of Directors and the election of those above named was insisted upon. It was also decided that moneys received by the Secretary should be turned over to the Treasurer, and paid out only on the order of the Secretary, approved by the President.

Measures were taken for the reduction of the shares of stock in the association from \$100 to \$25 each, and that the shares now held by Mr. Mills shall be offered for sale.

While all was not done that was wished, yet the association and its patrons may be congratulated on the work accomplished, and may believe that the Directors in charge of its affairs will look well to its interests.

The friends of corn were surprised, chagrined and delighted to learn, from the able address of President Henry E. Alvord, of the Oklahoma Agricultural college, before the State Board of Agriculture, that the valuable constituents of the corn plant have been, heretofore, even in countries where it was thought to be carefully handled, only half utilized. The stalks, which are too hard for stock to eat, were shown to contain as much digestible nutritive matter as all the other parts of the plant. Suitable preparation and judicious mixture with other feeds are alone necessary to realization of the profits from this hitherto wasted value. It was further shown that the value of not only the grain but of the fodder also is greatest when the ears are fully ripe.

## Fair Announcements.

Fairs will be held during the autumnal season of 1895 at the following places, as indicated:

Holden, Mo., August 13-17.  
Belton, Mo., August 20-24.  
Olathe, Kas., August 27-31.  
Garnett, Kas., September 3-7.  
Burlington, Kas., September 10-14.  
Ottawa, Kas., September 17-21.  
Paola, Kas., September 24-28.  
Mound City, Kas., October 1-4.

The Nebraska State Board of Agriculture, in annual session at Lincoln, last week, located the State fair for the next five years at Omaha. Robert W. Furnas, of Brownville, is Secretary.

Best equipped, most thorough business training school in the Southwest. Wichita Commercial college, Y. M. C. A. building.

## Money in Early Vegetables.

**EDITOR KANSAS FARMER:**—The question of the hour is, how can I make money? These have, indeed, been trying times, and the question has been a perplexing one, but I think I have a solution of it, which many of you would do well to follow. As now is the accepted time to begin this line of work, a few timely hints, I trust, will not come amiss.

My suggestion is this: Put a little time and money into the right sort of a market garden, and supply the large Northern markets with desirable early vegetables.

**Tomatoes.**—There is money in this very popular and quick-selling vegetable, and if your present line of merchandise does not meet with ready sales, try this line that promises profitable and quick returns.

The wholesale price on early shipments runs as high as 20 cents per pound on the Chicago markets, but even taking 5 cents per pound as an average, I know of nothing that will turn more clean cash, net, per acre. Tomatoes at even 1 cent per pound beats wheat at \$2.

Tomato seed may be sown in hotbeds at once and grown in heat until the second leaf appears. Then transplant same into cold frames, 2x3 inches apart, and hold in good stock condition till the time for outside planting arrives, taking care not to over-water, and giving all the air and light possible.

When the time for planting to the open ground arrives, set them so as to admit of horse cultivation both ways, which will save all hand-hoeing and other needless expense. They should be given good cultivation while growing.

**Shipping.**—As Northern markets command the highest price, have your arrangements made with a good reliable commission merchant to handle your produce. The crop should be packed at just the right stage, so as to admit of its carrying properly.

The boxes for packing should be light, neat and attractive. Nothing but first-class stock should be packed. By dealing honestly and furnishing fine stock only, you will stimulate a demand for your goods, for when a buyer can depend upon a grower, his goods will always find a ready market. I would recommend as a few of the best varieties the following first-class sorts: Buckeye State, Atlantic Prize, Buckbee's Tree, Favorite, Beauty and Dwarf Aristocrat.

**Radishes.**—This is another most profitable vegetable, and from \$300 to \$500 can readily be realized per acre from this vegetable alone.

They mature in from twenty-five to thirty days, under favorable circumstances, and if well grown and placed in Northern markets in January, February and March, they will find ready sales. Some of the finest varieties are as follows: Rapid Forcing, a fine scarlet turnip variety, which matured in twenty days on our Rockford Seed farm the past season; Rosy Gem, a most beautiful white-tipped scarlet turnip variety, matured under same conditions in twenty-three days after planting. Then comes the famous Chartier, a white-tipped, long, scarlet, which is a great favorite wherever grown.

The seed may be sown in drills one-quarter to one-half inch deep, with a distance of fourteen to sixteen inches between rows, so as to admit of hand cultivator, which every gardener is supposed to have.

The ground must be rich, so that this vegetable may be grown as rapidly as possible. Give same careful attention to packing and shipping as mentioned above, and you will be repaid for your labor a hundred-fold.

Limited space prevents my writing of numberless other vegetables that, handled with the same careful attention, will yield equally as good results. Here is success to you the coming season.

H. W. BUCKBEE.

Rockford Seed Farms, Rockford, Ill.

We have on hand three "Mary Jane Dishwashers." The price is \$3 each. But to close out we will send one dishwasher free to any one sending us five subscriptions and \$5.



## Horticulture.

### THE STRAWBERRY-GROWING AND MARKETING.

[The following paper was prepared by S. W. Gilbert, Thayer, Oregon county, Mo., and read by him before the twenty-eighth annual meeting of the Kansas State Horticultural Society, at Fort Scott, Kas., December 12, 1894.]

It has been truly said that the strawberry is the first fruit to ripen, and comes to the table when the appetite is capricious, as a welcome visitor. So beautiful in form, color and fragrance, it is among fruits what the rose is to flowers. In flavor so delicious, in healthfulness so beneficial, that invalids gain strength while its season lasts. Strawberries, fully ripe and freshly picked from the vines, may be eaten at every meal, in saucers heaped high like pyramids, and nourish the most delicate stomachs.

The charm of the strawberry does not all end in the eating of it. No fruit is so soon produced after being planted. It affords employment that is pleasant, easy and profitable for poor men with little land; for old men with little physical strength; for women, boys and girls who love to till the soil and delve in Mother Earth. So certain to grow, equally sure to sell at paying prices, it is so suited to all soils and climates, and its culture is so soon and bountifully rewarded by big berries, that the exercise and joy of success bring with it health and a good conscience.

Note, also, the labor which is saved to the family indoors. No lard, tough beef, or dried apple pies to be manipulated and toasted in midsummer over red-hot stoves. For the strawberry comes from the garden to the table in the most tempting and presentable shape, none of the new, sweeter varieties requiring much, if any, sugar or any other condiments, to fit them to grace the table of the most fastidious.

Mr. Hale, of Connecticut, has said: "No man should fool himself into telling his wife that he has no time to bother with such small trash as berries, but will buy all the family wants. He may not be much of a liar, but those of us who have so often heard that old chestnut about buying all the berries the family wants, know that man is away off. He never did and never will buy one-tenth part as many berries as the family will consume, if he will give them all they can wallow in right fresh from the home garden."

The right way to do is for each and every family in all this broad land of ours, that has a rod or more of land, to grow enough for the whole family.

Every farmer should at least grow enough for his family and a few of his friends. This will help give the boys a longing for the old home, and not half as many young men, will care to rush to our cities as there are at the present time. The acreage can be gradually increased until he shall have some for market to help buy the little necessities for the dear ones at home.

It will surprise some of my hearers the number of quarts of berries that can be grown in our country on an acre of land. This season, 1894, I sold nearly 11,500 quarts from one and three-fourths acres, and they netted me nearly \$1,000.

I am just beginning to learn the first principle of berry-growing, and I hope to be able, by proper feeding of my plants, within the next few years to show that it is just about as easy to get twice this amount of fruit, and sell it for more than twice this sum, as it is to grow and produce the amount that I am now doing.

Strawberries will thrive and do well on almost any soil and on every slope. You cannot find a rocky hill or valley in the Ozarks that will not produce a fair crop of berries without fertilizers, if properly cultivated. Therefore, any one who owns land in this section can have no good reason for not growing plenty of berries. Southern exposure will produce early berries and a northern slope will give you later ones.

I have found that new land, freshly cleared and thoroughly plowed, grubbed and harrowed well, is the best ground for berries. Do not be afraid to plow deep. If you can get

your plow four feet into the ground, so much the better. Do your plowing in the fall and winter, so that the ground will have time to settle a little before spring. If you do this work well, all that will be required in the spring will be to harrow again, mark off and set your plants.

It is well to put all the available plant food possible on your berry bed. I buy all the manure I can get, pile it up in the summer to rot, pitching it over a time or two during the summer, to let the weed seed germinate, and apply to the rows late in the fall, when the ground is very dry or frozen. Some growers object to applying manure directly over the crowns, but so far I have not seen any bad effects with plants treated in this way. A clover field may be plowed under and a crop of potatoes taken from it and then apply your manure and plow deeply and you will be sure to get good results. Dried blood, I believe, will make big berries, but the cost—\$42 to \$45 a ton—may not meet the approval of many of us to-day. The cleanings of a lime kiln, including the wood ashes, are good fertilizers. Ground bone applied just before the plants are set is a good fertilizer, although we do not need one-tenth the fertilizers here that they do in the East.

If you cannot get new ground to plant your berries in, it will be best to cultivate the ground for at least one season in some hoed crop, and be sure and not let a single weed go to seed.

In planting, I use a bull-tongue plow to mark the rows, marking both ways as deep as possible. Plant in the checks so that the crown of the plant will be just as near even with the surface of the ground as possible. Firm the earth over the roots by stepping directly over the plant after it has its roots covered with earth, and then draw a little loose earth over foot-print to hold the moisture. Place your order now for plants, so that you can get them early in the spring, and plant as soon as the ground can be worked. This is important, so that your beds may be already established when the dry weather comes next July and August, as now predicted by that grand man, Rev. Irl Hicks, of St. Louis.

I have tried summer planting twice, but have had poor success with it and would not recommend it, unless you are prepared to irrigate.

Never let the weeds get a start, but cultivate before they can be seen peeping through the ground. I use the Planet Jr. cultivator and think it is the greatest labor-saving cultivator ever made. In very rocky ground and when the plants are small I usually take off all but three shovels, when rows are close together, as this will prevent throwing dirt or stones on the plants. Where ground is free of rock I would recommend the Planet Jr. with ten or twelve small teeth, reversible, and the pulverizer attachment. The hoe is an instrument that cannot well be dispensed with, and should be used frequently and thoroughly, but be careful not to hoe deep.

One of the most important items of strawberry-growing is the distance the plants are apart at fruiting time. I believe that six or eight inches by one foot, in the matted-row system, will give as good if not better results than to have them closer. It is easier to tell how the plants should stand than to make them stand just that way. I think that, as a rule, berry-growers are too much afraid of spending money enough on their plantations to obtain best results.

The present season I counted 260 berries and blossoms on a single plant that had plenty of room to show what it would do if given a good chance. Even if this plant would only mature fifty good, large-sized berries, and that they would only fill one wine-quart box, who is there before me to-day that would begrudge that plant even a square foot of ground? The best and cheapest way that I know of to get your plants six or eight inches by one foot is to set your plants three by five feet and cultivate both ways and keep all blossoms and runners off the plants until they are well-established, good, strong plants, and then only let four runners form on each plant. Train the first

two runners lengthwise of the rows, so that you will have a single row of plants one foot apart in the rows and the rows five feet apart; then let each plant make two more runners and train at right angles to the row and let each one of these runners make two plants and keep all the balance of the runners pulled off.

This will insure you some very large, fine plants, that will bear berries in piles instead of a few little stunted berries, as we often see in matted rows where the plants stand not over an inch apart. The great mistake that I have made has been in allowing plants to mat too closely, but I intend to thin heroically in the future, and I expect that every cent that I spend on my patch will be doubly repaid to me in fine, large berries that will sell at the very highest market price.

I am trying ten acres in hill culture this season, but am not sure that this will pay better than the matted rows, if properly cultivated. Will give you a report of them after the crop next spring.

Wherever the ground is of such nature that the frost will heave plants out in the winter, or where they are planted on ground that will spatter the berries with dirt during the berry or picking season, they should be mulched with clean wheat straw, prairie hay or some other substance that will lay up loose over the plants to keep them from heaving, or from getting gritty. Many put on a great deal more mulch than is necessary. A very thin layer of straw, thin enough so that you can see the plants dimly, is plenty thick enough. You will not have to remove it in the spring, but let the plants grow right up through it. The soil on our hill lands in Oregon county was never known to heave a stool of clover or a strawberry plant, and I do not deem it absolutely necessary to mulch, as the soil does not spatter enough to make any great difference. I have mulched a small part of my plantings for the last five years and do not know that it has ever paid me, yet I intend to mulch a little this winter. If you wish to retard the ripening of a part of your plant you can accomplish this by a heavy mulch after the ground is frozen, leaving it on until rather late in the spring.

If your ground is not naturally under-drained, it should be well under-drained before planting. I believe that with a proper system of sub-irrigation we can double the yield and returns of our crop each year for a series of years, and I intend to have my plant under perfect control as far as moisture is concerned in the very near future, when I hope to give some startling results.

Strawberry plants are divided into two general classes, known as staminate (perfect) and pistillate (imperfect). These terms are well understood by growers generally, but beginners may need to be told that the staminate plants are those that carry their own pollen, and are therefore perfect flowering, while blossoms of pistillates contain no pollen, and require the aid of a staminate variety before they will produce perfect fruit. There are one or two exceptions to this general rule. The pollen is carried to the pistillates by the wind and insects, hence the good results from a goodly number of bees in connection with the strawberry. Wet, damp and cool weather at blooming time may interfere with a proper distribution of pollen and cause a crop of imperfect fruit, and possibly a total failure.

There are hundreds of varieties that are extensively advertised by the different nurseries throughout the country, and the beginner may, after looking over a dozen catalogues, be so bewildered that he will not know what to order, for every one of them will claim some half a dozen varieties are

## Don't Forget

that when you buy Scott's Emulsion you are not getting a secret mixture containing worthless or harmful drugs.

Scott's Emulsion cannot be secret for an analysis reveals all there is in it. Consequently the endorsement of the medical world means something.

## Scott's Emulsion

overcomes Wasting, promotes the making of Solid Flesh, and gives Vital Strength. It has no equal as a cure for Coughs, Colds, Sore Throat, Bronchitis, Weak Lungs, Consumption, Scrofula, Anaemia, Emaciation, and Wasting Diseases of Children.

Scott & Bowne, N. Y. All Druggists. 50c. and \$1.

Invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

A. H. GRIESEA, Prop'r Kansas Home Nurseries, Lawrence, Kas., grows trees for commercial and family orchards—the Kansas Raspberry, Blackberries, standard and new Strawberries—also shade and evergreen trees adapted to the West.

Something New in Musk-melons  
The White Persian, the largest and best flavored on earth. Nothing better to be desired. Write for prices and particulars to Larkin Commission Co., Wichita, Kas. Mention FARMER.

APPLE Large stock of commercial sorts, with grape vines and a general nursery stock. Prices list free.  
TREES. KELSEY NURSERY CO., St. Joseph, Mo.

## Mount Hope Nurseries.

27th year. Have for sale a complete assortment of fruit trees, especially of the leading commercial sorts. Also making a specialty of extra hardy peaches, Crosby, Bokara, etc., 28 deg. below zero and a crop. For circulars and prices address the proprietors.

A. C. GRIESEA & BRO.  
Lawrence, Kas.

ESTABLISHED IN 1873.

## WILLIS NURSERIES.

Contain a general assortment of choice fruit trees and other nursery stock, which we offer for sale in lots to suit. Our prices are low—stock and packing the very best. Write for free catalogue and always mention name of this paper. A special lot of choice well-grown two-year-old apple trees for sale. Address A. WILLIS, Ottawa, Kansas.

## BONNER SPRINGS NURSERIES

We shall offer in the spring, 1895, at surprisingly low prices, a large stock of apple trees—mostly Gano, Ben Davis and Jonathan—the apples. Also small fruits of all kinds. Greenhouse bedding plants and bulbs for spring planting; asparagus, evergreens and a general collection of nursery stock, all being of the leading and most popular kinds. Address H. H. KERN, Manager, Bonner Springs, Kas.

## Lee's Summit Star Nurseries.

ESTABLISHED IN 1869.

Choice fruit and ornamental trees, including small fruits, evergreens, roses and shrubbery. A specialty of supplying trees for commercial orchards. Also shade trees. Plant while you can get the best trees at the lowest prices. Send for catalogue. Address (mentioning this paper) M. BUTTERFIELD, - Lee's Summit, Mo.



THE BINGAMAN PRUNER

The best Pruner ever made. Will cut any limb not exceeding 1 1/2 inches in diameter. One man can do more work with it than five men can with any other. Agents wanted in every State in the Union. Address—

ORCHARD PRUNER CO., Ottawa, Kansas.  
Mention Kansas Farmer when writing us.

## POTATO-PLANTER

We manufacture the celebrated Aspinwall Potato Planter, Aspinwall Potato Cutter, Aspinwall Paris Green Sprinkler, etc. Every machine warranted. These machines greatly reduce the cost of raising potatoes. Send for Free Illustrated Catalogue. ASPINWALL MANUFACTURING CO., 40 Sabin St., Jackson, Mich.



the best in the world to plant, and possibly no two of the whole catalogued list will be alike. From my own experience from varieties tested on the "Flint Hill," I would recommend the following staminate for this section of the country: Captain Jack, Comet, Parker Earle, and for extra late the Gandy. Pistillates, Crescent, Warfield, Speece, Greenville and Shuster's Gem. The list that has received the most votes from a large number of growers from all parts of the country is Bubach, Warfield, Haverland, Lovett and Parker Earle. Bubach, I think, is too soft for a good shipping berry, and the Haverland often rots at the tip end, especially if we have very much rain during the ripening season.

Perhaps the following fifteen varieties will give you something out of the lot that will be just what you want on your particular soil, so that after testing them all in a small way you will know just what to grow commercially: Pearl, Gandy, Haverland, Saunders, Bubach, Crescent, Greenville, Parker Earle, Warfield, Leader, Muskingum, Lovett, Brandywine, Speece and Shuster's Gem. For this particular section I do not think too much praise can be given the Speece, Comet, Greenville and Shuster's Gem for shipping, as well as very productive varieties.

It is said that the plant indicates by its leaf what is the shade of color, size, shape and quality of the berry. The lighter the color of the leaf the lighter the color of the fruit. The leaf also indicates the size of the berry. An irregular berry is indicated by an irregular leaf. Leaves on the same plant will vary considerably, no two being exactly alike, but their general form will be the same. Also the relative productiveness of different varieties can be told by the number of serratures or saw teeth on the leaf. The greater the number of serratures the greater the number of berries will be produced on an individual plant.

Circumstances must be taken into consideration whether we take the second crop off of a plantation or not. Many think that it is cheaper to plant a new bed than to try to renovate and cultivate for a second crop. If you decide to grow the second crop, plow two furrows on top the matted row, let lie a few days and then harrow lengthwise and then crosswise until dirt is all worked well into the rows. It is important to do this work immediately after the first crop of fruit is removed.

Picking and marketing the fruit is the business end of the whole work. Few of us grow berries for pleasure, and to get money out of the crop takes careful study and watchfulness. Almost any one can grow and market berries at home, but when you are growing for a distant market the berries must be picked carefully by the stem and laid into the box without handling the berry. Have your overseers see that no picker handles more than one berry at a time and only handles it by the stem. If the gloss is broken the berry will soon sour and decay. The fruit should always be put in new, clean packages, never using a box the second time. You should pick every red berry every day and not allow them to get too ripe. We have had a few days each year when we pick the patch over twice in twenty-four hours. Round the boxes up as full as you can get them without mashing when one box is set on top of another. Green leaves put on top of the crate before nailing the cover on is a great help in shipping long distances.

I do not look to the large cities for a market, but hunt up a good lively grocer in each town where I wish to ship and treat him so nicely, and give him such nice fruit, that once a customer, always a customer, will be the rule and not the exception.

The commercial grower must not only work with his hands, but must work with his brain. Not a single day in the year can pass the successful berry-grower without his giving the business thought and study. He must have all his plains laid and a definite line of action to pursue long before the time comes to do the work.

The principal requisites for successful commercial strawberry-growing are money, brains, spunk, gumption,

perseverance, a genuine love for the business outside of the money question, and an indomitable will that never knows defeat, a good, stiff backbone and an honest heart.

## In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

### They Feel for the Poor Man.

The effect of the decision of the Supreme court upon the manufacturers of oleomargarine in Chicago was not exactly exhilarating. They one and all deplored the decision from the standpoint that it deprived the poor man of a wholesome and cheap substitute for genuine butter. This is throwing dust in the eyes of people with a vengeance. The decision does not stop them selling oleomargarine in Massachusetts, as oleomargarine; it simply prohibits their coloring it so as to swindle people. The color they used did not add to the wholesomeness of their product. Poor people can buy it uncolored if they want it; but the oleo people can no longer fool the poor man or any other man into buying a fraudulent article thinking that he was getting the genuine. Armour & Co. have made up some uncolored butterine and shipped to Massachusetts to test the question as to whether or no people will buy it on its merits. If they do no one can complain. This is the same oleo crowd who, through Senator Manderson, were so anxious to have a law passed which would prohibit dealers from selling inferior butter for oleomargarine. They are a shifty and foxy crowd and will bear close watching.—*American Creamery.*

### Protection Against Flies.

For years there has been a diligent search for some kind of an antidote against the ravages of flies in the dairy. Every one at all familiar with cows knows how they suffer in hot weather from the attacks of flies and how it not only robs them of milk but reduces the quality of the milk they do yield. All sorts of liquid and salve applications to the cows have been suggested, along with dark stables and other devices, to get rid of the flies, but with only partial success. We know also that the fight against these little nuisances has been kept up in our homes with powders and traps of all sorts, and that lately most good housewives have settled upon a sticky kind of paper—that, by the way, is mighty bad to sit down upon—as the best thing for catching and destroying flies. Now we learn that a Canadian has invented a similar trick for protecting the cows. He has a saddle made for the cow that holds sheets of tin covered with this sticky substance, and placed on her back. The cow drives the flies on this saddle with her head and tail, and when the sheet is filled the flies and sticky stuff are scraped off and the sheet of tin re-coated. A gentleman writes this description to *Hoard's Dairyman* and says he used the saddle on nine cows and has counted 1,140 flies caught in one night. He also says that this plan not only increased the flow of milk "five points above the best in the factory," but that the number of flies actually decreased in a few weeks, showing that this device goes to the very roots of the question. Perhaps we have struck upon a new benefactor of the cow and incidentally the human race, for we are told this thing is patented and will be offered for sale in the spring. This fellow may be poking fun at us but some one may take him seriously, and, out of his suggestion, devise something in this line really useful.

The Chicago Produce Exchange Endorses the Anti-Oleo Decision.

On Monday, at a meeting of the Chicago Produce Exchange, the following resolutions were unanimously adopted:

Whereas, By the unjust and fraudulent sale of oleomargarine as pure butter, the sale of genuine butter has been greatly lessened and the dairymen and farmers throughout the country compelled to suffer serious loss; and Whereas, By a recent decision of the

Supreme court of the United States the sale of oleomargarine as butter and the coloring of the same so as to resemble butter, thereby cheating the unsuspecting purchaser, is declared a fraud and not permissible, and, furthermore, that oleomargarine in original packages cannot be sold or carried into the State under the inter-State commerce law when the State law prohibits such introduction or sale, thereby giving to the State laws full force and effect; therefore, be it

Resolved, By the Produce Exchange of the city of Chicago, that we hereby commend and express our unqualified approval of our brother merchants in Massachusetts, New York, Connecticut, Pennsylvania, Maryland and elsewhere, who have so courageously and persistently contended for the sale of pure butter, and have resisted the encroachments of oleomargarine.

Resolved, That the Secretary of the Produce Exchange of the city of Chicago proceed at once to place this exchange in correspondence with other exchanges and associations of similar character, so that such united and prompt action may be had in the interests of pure butter as will promote the best interests of the trade and further hinder the sale of counterfeit butter, thereby availing ourselves of the protection of the recent decision the Supreme court has accorded to one of the most important industries of our country.

It is hoped that every one having the anti-oleo petitions in their keeping will return such to the dairy editor of the FARMER as soon as a sufficient number of names have been obtained. It will be necessary to have them all in by the 1st of February.

Mr. J. L. Hoffman is the Secretary and Manager of the Heston Creamery Co., whose main office is at Newton, Kas. This company operates three factories, besides six skimming stations, and is doing a constantly increasing business. Mr. Hoffman is quite a firm believer in the central station idea and is putting it in practice in his creameries. They are paying close to Elgin prices for their milk and their patrons should be well satisfied.

The difference there is in men to arrive at successful results in dairying is illustrated by the performance of a cow at the Minnesota State farm. During the year 1893 she earned \$127.50; the cost of her care and keep for the same period was \$42.56, leaving a surplus of \$84.94 for her owner. Truly, such a cow is a good investment, but her former owner did not think so, as he sold her for \$25 and believed he was getting the best end of the bargain. Of course he was, in a way, because his method of dairying would never have developed the earning capacity of the animal in the manner that men familiar with progressive dairying have done. It was a good bargain for the cow, because it transferred her to people that knew how to feed her so as to permit a generous response at the pail, and treat her yield in an intelligent manner so as to make its product command the highest possible price. The sale of this cow and her subsequent earnings tells the story, in concrete form, that there are dairymen and alleged dairymen, and that the latter have not sufficient gumption to make a success of the business when opportunity thrusts all the essentials of prosperity upon them.

Send for our latest premium and clubbing list.

## Creamery Package Mn'g Company,

DEPT. B, . . . . KANSAS CITY, MISSOURI.

We Carry the Largest Stock in the West of

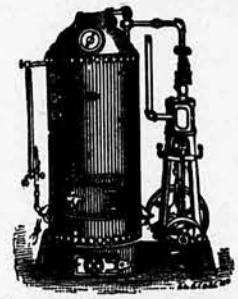
**Engines and Boilers,**  
from 2 to 75 horse-power.

**Feed Cookers,**  
of any desired capacity.

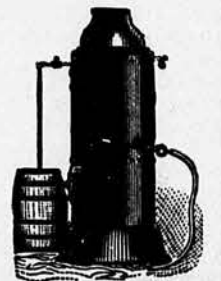
**Creamery Supplies, Etc.**  
of every description.

**NEW ILLUSTRATED CATALOGUE**  
and Special quotations Free of charge

upon application. . . . .



Upright Engine & Boiler.



"Eureka" Feed Cooker

**YOU SAVE 50%**  
IF YOU BUY A HIGH-GRADE OXFORD WHEEL  
For men, women and boys as price ranging from \$15.00 to \$40.00.  
WE HAVE NO AGENTS. We ship from factory subject to approval and are the only manufacturers selling direct to consumers. Don't pay local dealers a profit of 50 per cent., but WE 75 TO 80 PER CENT. for our handsome catalogue. Address, OXFORD MFG. CO., Bicycle Dept. 1714 438 Wabash Ave., Chicago.



PIASA BIRD

particulars to

Hapgood Plow Co.,

ALTON, ILL.



K.C. HAY PRESS CO. KANSAS CITY, MO.

Sixth and Mill Streets.



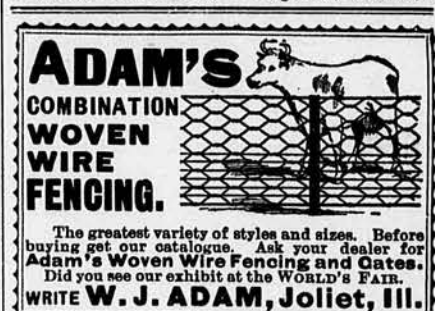
Entirely of Steel. No castings to break. Strongest and simplest Lever Arrangement on the market. Write for descriptive Circular. Roderick-Lean Mfg. Co., Mansfield, Ohio. Keystone Mfg. Co., Gen. Agts., Kas. City, Mo.



23 RIVER ST. YPSILANTI, MICH.



**STEEL WEB PICKET LAWN FENCE.**  
Steel Posts, Steel Rails and Steel Gates; Steel Trees, Flower and Tomato Guards; Cabled Field and Hog Fence; Steel Wire Fence Board, etc. Catalogue free. DeKALB FENCE CO., 23 High St., DeKalb, Ill.



**ADAM'S COMBINATION WOVEN WIRE FENCING.**

The greatest variety of styles and sizes. Before buying get our catalogue. Ask your dealer for Adam's Woven Wire Fencing and Gates. Did you see our exhibit at the WORLD'S FAIR. WRITE W. J. ADAM, Joliet, Ill.



**Faith, Hope and Charity**

are the essentials for a model Christian, and HEIGHT, STRENGTH and ELASTICITY, for a model wire fence. In the first case, Charity is the greatest of the three, and in the other, Elasticity, but it must be the genuine article in both cases. If reformers could establish a great mill where ordinary mortals could be run through and as thoroughly fitted for good honest work as the product of our looms, what a Paradise this world would be. For further particulars in regard to fence, see small bills.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.







## The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. ORR, Manhattan, Kas.

**DIFFICULT BREATHING IN COW.**—I have a cow that has trouble in breathing. She eats well and is in fair flesh, though not as good as other cows are on the same feed, but she makes a noise like a person snoring. I cannot tell how long she has been ailing, as I just bought her lately. A. G. Richland, Kas.

**Answer.**—It will require an examination or else a more complete description of the case to enable any one to determine what is the matter with your cow. There may be some abnormal growth, as a tumor, in one of her nostrils, or there may be enlargement of some of the glands about her throat. As either of these may be the result of tuberculosis, an incurable and a transmissible disease, it will pay you to have your cow examined by a competent veterinarian before it is too late.

**WORMS IN DOG—BOAR AILING.**—(1) I have a bull-terrier bitch that was sprayed at ten months. She has never been able to drink milk, either sweet or sour, or eat fat meat without vomiting. She has a voracious appetite and never seems to get enough to eat. For more than a year she has occasionally been passing balls of worms about half an inch long, flat, and white in color. Sometimes I can relieve her for a few days by giving injections of salt and water. When she was troubled last time a very long white worm came and broke off. (2) I also have an English Berkshire boar, about ten months old, that sometimes passes blood from his nostrils. When he gets up in the morning he blows out something that looks like matter and blood. This does not happen every morning. Sometimes it will not show for several days. Neola, Kas. N. J. R.

**Answer.**—(1) It seems your dog is infected with both the tape-worm and the round worms, and it will probably require some care and perseverance to get rid of them. First, let the dog fast for twenty-four hours, then give one drachm of areca nut powdered and mixed with a tablespoonful of sweetened milk; four hours later give two tablespoonfuls of castor oil, and when this has operated give the following: Oil of male-shield fern, 20 drops; olive oil, 1 tablespoonful; mix and give at one dose. In about two days after, if no diarrhea exists, give two tablespoonfuls of castor oil and ten drops of turpentine. Repeat the whole treatment in about three weeks. (2) Your hog evidently has an abscess of some kind in the nasal chambers. Only an examination will determine what it is, and what line of treatment to adopt.

### MARKET REPORTS.

**Kansas City Live Stock.**  
KANSAS CITY, Jan. 21.—Cattle—Receipts, since Saturday, 4,334; calves, 52; shipped Saturday, 2,401; calves, 201. The general market was steady; good cows strong. The following are representative sales:

**DRESSED BEEF AND EXPORT STEERS.**  
20.....1,408 \$4.45  
19.....1,319 4.25  
18.....1,223 4.15  
17.....1,169 4.10  
16.....1,243 4.00  
15.....1,208 4.00  
14.....1,171 3.70  
13.....915 3.30

**WESTERN STEERS.**  
11.....1,078 \$3.35  
**WESTERN COWS.**  
44 Utah.....850 2.79  
**COWS AND HEIFERS.**  
25 h'd.....1,173 \$4.35  
22.....912 3.40  
20.....910 3.15  
18.....1,102 3.10  
17.....980 3.10  
16.....788 3.00  
15.....1,130 2.90  
14.....687 2.81  
13.....802 2.77  
12.....800 2.75

**TEXAS AND INDIAN STEERS.**  
67 meal.....1,007 \$3.00  
25 meal.....960 3.40  
**TEXAS AND INDIAN COWS.**  
1 meal.....1,200 \$3.75  
13 fed.....986 2.50  
26 gr.....680 1.67

**STOCKS AND FEEDERS.**  
11.....1,172 \$3.80  
22.....973 3.40  
21.....1,129 3.35  
3.....636 3.20

**Hogs—Receipts since Saturday, 6,381; shipped Saturday, 947. The market was quiet and**

## Horse Owners! Try GOMBAULT'S Caustic Balsam

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circular, and THE LAWRENCE-WILLIAMS CO., Cleveland O.

about steady. The top was \$4.25 and the bulk of sales were \$3.95@4.15, against \$4.20 for top and \$3.95@4.10 for bulk Saturday. The following are representative sales:

60...343 \$1.25	70...336 \$4.20	80...335 \$4.20
80...291 4.15	81...284 4.15	83...147 4.15
74...235 4.15	85...303 4.15	87...276 4.10
75...247 4.10	85...243 4.10	70...267 4.10
130...236 4.05	89...274 4.05	60...231 4.05
57...231 4.05	50...234 4.02½	35...207 4.00
79...276 4.00	33...236 4.00	2...330 4.00
76...217 3.95	68...226 3.95	61...228 3.95
67...231 3.95	83...217 3.95	61...207 3.95
24...258 3.95	81...224 3.95	89...201 3.90
39...221 3.90	58...221 3.90	83...202 3.90
49...214 3.85	21...212 3.85	76...196 3.80
51...180 3.80	50...181 3.75	68...174 3.75
10...182 3.75	32...167 3.65	10...152 3.60
6...163 3.60	38...173 3.60	53...148 3.55
7...144 3.55	188...140 3.50	8...146 3.50
12...130 3.45	33...148 3.45	24...125 3.40
5...140 3.35	4...130 3.35	6...120 3.25

Sheep—Receipts since Saturday, 3,351; shipped Saturday, 473. The market was unchanged. The following are representative sales:

6 lambs.....66 \$3.80	62 lambs.....75 \$3.80
48 mut.....115 3.10	86 mut.....83 3.10

### Chicago Grain and Provisions.

	Jan. 21.	Open'd	High'st	Low'st	Closing
Wht-Jan.....	58½	58½	58½	58½	58½
May.....	57½	57½	57½	57½	57½
July.....	58½	58½	58½	58½	58½
Corn-Jan.....	41½	41½	41½	41½	41½
May.....	47½	47½	47½	47½	47½
July.....	46½	46½	46½	46½	46½
Oats-Jan.....	27½	27½	27½	27½	27½
May.....	30½	30½	30½	30½	30½
July.....	30	30	30	30	30
Pork-Jan.....	11 05	11 05	10 85	10 85	10 85
May.....	11 40	11 40	11 10	11 10	11 10
July.....	11 47½	11 47½	11 47½	11 47½	11 47½
Lard-Jan.....	6 52½	6 57½	6 52½	6 57½	6 57½
May.....	6 77½	6 80	6 72½	6 80	6 80
Ribs-Jan.....	5 50	5 50	5 50	5 50	5 50
May.....	5 80	5 80	5 67½	5 67½	5 67½

### Kansas City Grain.

KANSAS CITY, Jan. 21.—Wheat by sample was a little lower than Saturday. There was a fair demand for samples and a sale of 23,000 bushels No. 2 hard wheat out of store at 52½¢ was made. Offerings were very small.

Receipts of wheat to-day, 15 cars; a year ago, 94 cars.

Car lots by sample on track, Kansas City, at the close were quoted nominally as follows: No. 2 hard, 52½¢@53½¢; No. 3 hard, 52¢; No. 4 hard, 51¢; rejected, 48¢@50¢; No. 2 red, 52½¢@53¢; No. 3 red, 51½¢@52¢; No. 4 red, 51¢; rejected, 48¢@49¢.

Corn was offered rather freely and was about ¼¢ lower as a rule, with a fair demand at the decline.

Receipts of corn to-day, 43 cars; a year ago, 103 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 13 cars 38½¢, 7 cars 38¢; No. 3 mixed, nominally 38¢; No. 4 mixed, nominally 37½¢; No. 2 white, 2 cars 40¢, 5 cars 39½¢, 2 cars 39½¢; No. 3 white, 1 car 39½¢, 1 car 39¢.

Oats were in fair demand at unchanged prices.

Receipts of oats to-day, 18 cars; a year ago, 27 cars.

Sales by sample on track at Kansas City: No. 2 mixed oats, 2 cars 29½¢, 5 cars 30¢; No. 3, nominally 28½¢@29¢; No. 4, nominally 28¢; No. 2 white oats, nominally 32½¢@32½¢; No. 3 white, nominally 31¢@32¢.

Hay—Receipts, 76 cars; market dull and lower. Timothy, fancy, \$10.00; choice, \$9.00@9.50; No. 1, \$8.00@8.50; clover mixed, \$5.50@5.80; low grade, \$6.00@7.50; fancy prairie, \$8.50; choice, \$7.00@7.50; No. 1, \$6.00@6.50; No. 2, \$5.00@5.50; packing hay, \$3.50@4.50.

### Kansas City Produce.

KANSAS CITY, Jan. 21.—Eggs—Receipts light; demand small; the market is dull and unchanged; strictly fresh, 15¢.

Poultry—Receipts light; market for chickens is quiet and weak; hens, 5¢; mixed springs, 5½¢; small, 6¢@6½¢; roosters, 12¢@15¢; dressed chickens, 5¢@6½¢. Turkeys, weak; old gobblers, 4¢; young, 4½¢; mixed, 5¢; hens, 5½¢; dressed turkeys, dull, 5¢@6½¢. Ducks, firm, 5½¢@6¢. Geese, plentiful, dull, 5¢@5½¢. Pigeons, dull, 75¢ per doz.

Butter—Receipts large; stocks accumulating; market is very dull; extra fancy separator, 22¢; fancy, 19¢@20¢; fair, 18¢; dairy, fancy, 15¢@16¢; fair, 13¢@14¢; fancy roll, 12¢@15¢; fair roll, 10¢@11¢; packing, dull, 7¢@8¢; old, 5¢@6¢.

Fruit—Apples, receipts light; supply small; the market is very firm; standard packed range from \$2.50@3.00 per bbl.; others, \$2.25@2.50; fancy stand, \$3.25@3.50; Jennetings, \$1.50@2.25 per bbl. Lemons, weak, \$3.00@4.25. Oranges, plentiful, weak; Mexican, \$2.50@2.75; Californias, seedlings, \$2.00@2.75; navals, \$2.90@3.00; Florida, \$3.00; frosted, 50¢@5.00; tangerines, \$2.25@2.50. Cranberries, firm; Cape Cod, \$10.00@11.00 per bbl.; Jersey, \$10.00@10.50.

Vegetables—Potatoes, receipts light; market fairly active, unchanged; ordinary kinds, common, 45¢@55¢ per bu.; sweet potatoes, red, 13¢@20¢ per bu.; yellow, 25¢@30¢ per bu.; Utah and Colorado, choice, 55¢@60¢ per bu. Cabbage plentiful, market firm, \$1.25 per 100; Michigan, \$25.00@30.00 per ton. Cauliflower, small, 45¢@50¢ per doz.; large, 75¢ per doz.

**WANTED**—A farm near Topeka. Dr. H. W. Roby, Topeka, Kas.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 117 East Sixth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

**DOUBLE Breech-Loader \$5.00. RIFLES \$1.75. WATCHES**

**BICYCLES \$15**

POWELL & CLEMENT CO.

166 Main St., Cincinnati, O.

All kinds cheaper than elsewhere. Before you buy send stamp for 60 page catalogue.

I will EXCHANGE for young CATTLE, KENTUCKY-BRED MAMMOTH JACKS!

and Jennets, or will sell on long time at 6 per cent. with approved security.

Call on or address

JAMES C. STONE, Jr., Leavenworth, Kas.

Hitch A Horse To A Hoe.

It's the up-to-date way of cultivating ground. But be sure and hitch him to the

"PLANET JR." STEEL HORSE HOE AND CULTIVATOR.

Light, strong and easily controlled by convenient levers. Has separate parts for doing close hoeing, furrowing, or ordinary cultivating. Our free-for-all catalogue tells all about it.

S. L. ALLEN & CO., Philadelphia, Pa.

Feeders, Attention!

WHAT ARE YOU DOING?

FEEDING WHEAT INSTEAD OF CORN?

EXPECT TO MAKE A HATFUL OF MONEY?

We hope you will, and to help you do it we offer a friendly word of warning. Those who know, say wheat fed to farm animals acts as an astringent, and causes constipation; therefore something else must be combined with the wheat to overcome this difficulty. You cannot put on flesh and fat unless the digestive organs are in a healthy condition, so that the food can be easily and properly assimilated. This can be secured by feeding an article that is not only a natural food but also a regulator of the system. If you will feed OLD PROCESS GROUND LINSEED CAKE (OIL MEAL) you will find that your animals will eat more wheat, grow faster, take on flesh and fat faster, keep in good health, and put money in your pocket. Hog feeders particularly should give heed to these suggestions.

For prices and further particulars, address

TOPEKA LINSEED OIL WORKS, Topeka, Kansas.

THE UNION STOCK YARDS, CHICAGO.

(Consolidated in 1865.) The largest live stock market in the world. The center of the business system from which the food products and manufactures of every department of the live stock industry is distributed.

Accommodating capacity: 50,000 cattle, 200,000 hogs, 30,000 sheep, 5,000 horses.

The entire railway system of Middle and Western America centers here, rendering the Union Stock Yards the most accessible point in the country. The capacity of the yards, the facilities for unloading, feeding and reshipping are unlimited. Packing houses located here, together with a large bank capital and some one hundred different commission firms, who have had years of experience in the business also an army of Eastern buyers, insure this to be the best market in the whole country. This is strictly a cash market. Each shipper or owner is furnished with a separate yard or pen for the safe keeping, feeding and watering of his stock, with but one charge of yardage during the entire time his stock remains on the market. Buyers from all parts of the country are continually in this market for the purchase of stock cattle, stock hogs and sheep. Shipper should ask commission firms for direct information concerning Chicago markets.

The Greatest Horse Market in America, the Dexter Park Horse Exchange.

N. THAYER, President. JOHN B. SHERMAN, Vice President and Gen. Manager. GEO. T. WILLIAMS, Secretary and Treasurer.

J. C. DENISON, Ass't Secretary and Ass't Treasurer. JAS. H. ASHBY, General Superintendent. D. G. GRAY, Ass't Superintendent.

The Kansas City Stock Yards

are the most complete and commodious in the West,

and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

Official Receipts, 1894.....1,772,545

Slaughtered in Kansas City.....2,547,077

Sold to feeders.....589,555

Sold to shippers.....44,237

Total sold in Kansas City, 1894.....1,677,792

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, General Manager. E. E. RICHARDSON, Secretary and Treasurer. H. P. CHILD, Assistant Gen. Manager. EUGENE RUST, Gen. Superintendent.

The "Eclipse" Sweep Feed Mill.

FURNISHED COMPLETE WITH SWEEP.

This mill grinds ear corn, new, dry or damp; shelled corn, alone or mixed with other grain for chop feed, wheat, oats, etc., and is so arranged that the interior parts of the mill revolve with the revolutions of the team and the power is applied directly to the grinding parts, thereby making the draft very light. The finest mill for the money on the market.

G. J. FERGUSON,

STATION A.

Kansas City, Mo.



## The Poultry Yard

### The North Kansas Poultry Show.

The third annual exhibition of the North Kansas Poultry Club was held at Atchison, Kas., from January 1 to 5, inclusive, and was a well-merited success. About 650 birds were in the exhibit, including those on sale. The chicken show was a very strong one and fully up to the standard requirements of the modern American fancier, ranking, according to the judgment of the writer, as to strength and individual merit in the more useful and profitable varieties about as follows: Barred Plymouth Rocks, S. C. B. Leghorns, Light Brahmas, S. L. Wyandottes, Black Langshans, White Plymouths, Indian Games, S. S. Hamburgs, B. B. Red Games, etc. There were no representatives of "ye olden time" and historical goose, nor of his less sedate aquatic relation, the duck. This feature of the exhibit reminded one of the traditional red man that tried to imitate his white brother, using a single feather for a pillow. But two representatives of the native American bird, the turkey, were on exhibition, and they were not scored for prizes, as they arrived too late for entry. Mr. Henry Shaw, of Potter, Kas., owned them, and right good specimens they were.

In the Plymouth Rock class, among others that exhibited very excellent birds was Emery S. Streater, of Dentonville, Kas., who, the reader will see on reference to the highest score list, ranked up well but was cut two points on weight. This question of weight, we think, needs some modification in its application in scoring, believing, as we do, that a bird made over-fat in order to reach the standard in weight is not always conducive to the best results as a breeder afterwards. Every fancier takes due regard as to size, but there is a marked difference between size and weight. If a bird is not up to a standard size and lacks generally or specifically in some important score scale points, why, cut, of course, but if he has the size and growth, without both internal and external fat, give the breeder some chance for his honest endeavors from a successful breeder's standpoint. The shows generally follow close after the moulting season, whereas, if the show came later on, the breeder could get his birds up in flesh and not fat, so that he could more successfully compete in weight with his more ambitious and less careful competitor. Fertility and then profit should, we think, be the aim of the breeder who is in the business to stay, but somehow the decision is often reversed—profit first and fertility afterwards.

By Thursday morning, the 3d, the judges, Mr. F. W. Hitchcock, of Greenleaf, Kas., and Mr. Theodore Hewes, of Trenton, Mo., had finished up the score, the awards placed and made known, so that the visitor of Thursday, Friday and Saturday had an open field for taking notes and comparing his favorites with the ideal of the expert judge. The highest score in class and awards were as follows:

#### BARRED PLYMOUTH ROCKS.

C. M. Silver, Iatan, Mo., eight scored. Cockerel 90½, pullet 92, pen 181½. Won second on cockerel.

J. T. Ayers, Atchison, Kas., ten scored. Hen 90, cockerel 92½, pullet 91½, pen 183½. Won third on pen.

J. W. Werner, Greenleaf, Kas., five scored. Hen 93½, cockerel 93, pullet 93½, pen 185½. Won first on hen, second on cockerel, first on pullet, third on pullet and first on pen.

C. W. Baster, Concordia, Kas., three scored. Cock 80, hen 91. Won second on cock, third on hen.

Emery S. Streater, Dentonville, Kas., six scored. Cockerel 91½, pullet 92, pen 182½.

W. J. Vance, Atchison, Kas., thirteen scored. Cock 90, hen 92½, cockerel 92, pullet 92½, pen 183½. Won first on cock, third on cock, second on hen.

L. W. Baldwin, Independence, Mo., thirteen scored. Cockerel 92½, pullet 92½, pen 184 7-20.

#### SINGLE-COMBED BROWN LEGHORNS.

James Qurollo, Kearney, Mo., ten scored. Hen 94½, cockerel 94½, pullet 94½, pen 188 3-25. Won second on hen, first and third on cockerel, second and third on pullet, first and third on pen.

W. J. Vance, Atchison, Kas., twenty-one scored. Hen 94, cockerel 93½, pullet 94½, pen 187½. Won third on hen, second on cockerel, first on pullet.

S. G. Sprague, Atchison, Kas., two scored. Hen 94½. Won first on hen.

C. A. Sparks, North Topeka, Kas., eleven scored. Hen 91½, cockerel 92, pullet 94½, pen 185 4-5. Won first on pullet.

#### LIGHT BRAHMAS.

D. A. Benjamin, Effingham, Kas., four scored. Cockerel 91½, pullet 94½, pen 183½.

H. B. Challis, Atchison, Kas., twenty scored. Cock 94, hen 94, cockerel 93½, pullet 95½, pen 188½. Won first on cock, first

and second on hen, second and third on cockerel, first second and third on pullet, first and second on pen. In the flock of thirty-seven birds on sale a hen won second.

C. C. Roberts, Stewartville, Mo., seven scored. Hen 94½, pullet 94½, pen 187½. Won first on cockerel, third on pen.

#### SILVER-LACED WYANDOTTES.

E. T. Powell, Everest, Kas., eleven scored. Cock 89½, hen 90½, cockerel 91, pullet 92½, pen 182 4-5. Won second on cock, third on hen, first and second on pullet, first on pen.

J. I. Scott, Good Intent, Kas., five scored. Cockerel 90½, pullet 91. Won second on cockerel.

J. T. Ayers, Atchison, Kas., five scored. Hen 91½, cockerel 90½, pullet 89, pen 180 1-10. Won first on hen, first on cockerel.

P. W. Seip, Atchison, Kas., eleven scored. Hen 91½, cockerel 89½, pullet 92, pen 180 4-5. Won first on hen, third on pullet, second on pen.

#### AYERS AND SEIP TIED ON HEN.

#### BLACK LANGSHANS.

A. M. Ellsworth, Effingham, Kas., five scored. Cockerel 93, pullet 93½. Won third on cockerel, third on pullet.

O. B. Truax, Atchison, Kas., five scored. Cockerel 93½, pullet 92½. Won second on cockerel, second on pen.

Paul Clute, Atchison, Kas., six scored. Hen 93½, cockerel 94½, pullet 94. Won first on cockerel, second on hen and first on pen.

S. G. Sprague, Atchison, Kas., twenty-five scored. Cock 92½, hen 95, cockerel 86½. Won first on cock, first and third on hen, first and third on pen. Tied on pen.

#### WHITE PLYMOUTH ROCKS.

C. M. Siler, Iatan, Mo., five scored. Cockerel 93½, pullet 95½, pen 187 4-5. Won first on cockerel, first and third on pullet and first on pen.

W. C. Alexander, Everest, Kas., five scored. Cockerel 91, pullet 93, pen 183½. Won second on pen.

G. H. T. Shafer, Atchison, Kas., six scored. Pullet 95, pen 182½. Won second on pullet and third on pen.

W. W. Worner, Geary City, Kas., four scored. Cockerel 93. Won second and third on cockerel.

#### INDIAN GAMES.

W. V. Church, Marion, Kas., four scored. Hen 92, pullet 93½.

E. A. Haslet, Atchison, Kas., twenty-two scored. Cock 95, hen 95, cockerel 94, pullet 95. Won first, second and third on cock, first, second and third on hen, first, second and third on cockerel, first, second and third on pullet, first and second on pen.

#### SILVER-SPANGLED HAMBURG.

Emery S. Streater, Dentonville, Kas., six scored. Hen 90½, cockerel 91, pullet 92. Won first on cockerel, third on pullet and first on pen.

Ira S. Barth, Atchison, Kas., four scored. Cock 92, cockerel 89½. Won first on cock, second on cockerel, first on pullet and first on pen.

M. W. Grodiger, Cummings, Kas., three scored. Hen 91, pullet 92. Won first on hen, second on pullet.

#### BROWN-BREADED RED GAMES.

Clarence Haslet, Atchison, Kas., five scored. Cock 93, hen 93, cockerel 92½, pullet 93½. Won first on cock, first and second on hen, second on cockerel, first on pullet.

Mrs. A. Zahn, Atchison, Kas., three scored. Cockerel 94, pullet 93½. Won first on cockerel, second and third on pullet, first on pen.

Ray Holland, Atchison, Kas., one scored. (Disqualified).

#### WHITE WYANDOTTES.

P. W. Seips, Atchison, Kas., five scored. Cock 93½, hen 94, cockerel 93, pullet 92, pen 186½. Won first on cock, first and second on hen, first on cockerel, first, second and third on pullet, first and second on pen.

#### SINGLE-COMBED WHITE LEGHORNS.

E. C. Worden, Auburn, Neb., three scored. Hen 92½, cockerel 93, pullet 94½. Won first on hen, first on cockerel, first on pullet and first on pen.

#### WHITE-CRESTED BLACK POLISH.

R. H. Cropper, Washington, Kas., four scored. Shown and on sale.

#### ROSE-COMBED BROWN LEGHORNS.

E. T. Powell, Everest, Kas., five scored. Cockerel 91½, pullet 94. Won first on cockerel, first, second and third on pullet.

#### HOUDANS.

H. E. Shumway, Atchison, Kas., two scored. Cockerel 92, pullet 93½. Won first on cockerel, first on pullet.

#### PARTRIDGE COCHINS.

H. W. Davy, Atchison, Kas., on sale.

#### WHITE-FACED BLACK SPANISH.

Chas. Pautle, Atchison, Kas., two scored. Cock 93½. Won first and second on cockerel.

#### BUFF PLYMOUTH ROCKS.

L. W. Baldwin, Independence, Mo., five scored. Cockerel 91½.

Chas. Pautle, Atchison, Kas., three scored.

Henry Shaw, Potter, Kas., three scored. Pullet 93.

#### BUFF COCHINS.

W. C. Alexander, Everest, Kas., eight scored. Cock 93, hen 93½, cockerel 89½, pullet 93. Won first on cock, first, second and third on hen, second on cockerel, first and second on pullet, first on pen.

#### GOLDEN WYANDOTTES.

W. A. Doolittle, Sabetha, Kas., five scored. Cockerel 91½, pullet 92½.

#### BLUE IRISH PIT GAME.

Eugene Smith, Atchison, Kas., one scored. Won second on cock.

#### GOLDEN SEEBRIGHT BANTAMS.

Miss Alma Siler, Iatan, Mo., seven scored. Cockerel 90, pullet 93. Won first on cockerel, first, second and third on pullet.

#### BUFF COCHIN BANTAMS.

D. A. Benjamin, Effingham, Kas., two scored. Cock 93, hen 91½.

#### WHITE BANTAMS.

Ray Holland, Atchison, Kas., three scored. Won first on cock, first and second on pullet.

#### GAMES.

Gene Smith and M. Greene, of Atchison, exhibited games. Mr. Smith won second on game hen. On Claborn Pits Mr. Green won second on cockerel and first on pullet. On B. B. Pits Mr. Green won first on cockerel, first on Irish Spangle cock, first on pen of B. P. Game, first on Irish Gray hen and second on Pile Game hen.

At the annual meeting held on Friday evening, officers for the club were elected for the ensuing year, as follows:

President, W. J. Vance, of Atchison; First Vice President, J. W. Werner, of Greenleaf; Second Vice President, H. B. Challis, of Atchison; Third Vice President, C. M. Siler, of Iatan. Executive committee, E. A. Haslet, of Atchison; E. F. Powell, of Everest; B. F. Clark, of Stewartville, Mo.; J. W. Steele, of Atchison; Emery S. Streater, of Dentonville. Secretary, J. G. Sprague; Treasurer, H. E. Shumway. W. P. BRUSH.

**NEW 68 PAGE CATALOGUE**  
AND GUIDE to Poultry Raisers for 1895.  
Contains over 180 fine illustrations showing a photo of the largest henhouse in the west. Gives best plans for poultry houses, sure remedies and recipes for all diseases, also valuable information on the kitchen and flower garden, sent for only 10 cents. John Bauscher, Jr., P. O. Box 11 Freeport, Ill.

**NEW CATALOGUE 1895**  
Printed in colors. The finest and best Poultry Book ever published. Illustrates and describes all the leading varieties of Poultry. Gives prices of Poultry and Eggs. Plans for Poultry Houses and Remedies for Diseases. If you raise Poultry, you can not afford to be without it. Sent for 10c. in silver or stamps. Address:  
**The J. W. MILLER CO.**  
Box No. 152 FREEPORT, ILL.

#### SHOEMAKER'S POULTRY ALMANAC

FOR 1895

Is positively the finest work of the kind ever published. Others advertise the finest (but they have not got it). If you want something that is just as you find it advertised here or even better, you will get it by sending your order to me. I PROVE ALL CLAIMS. Geo. P. Miller & Son, Philadelphia, Pa., writers.

"It is a thing of beauty and without a peer. It shows unparagoned and bristles with valuable information on every page."

It contains 88 pages, best paper, in colors, photo engravings of the largest poultry farm in the Northwest. Also other fine engravings, besides illustrations of 45 of the leading varieties of Pure Bred Fowls, with full description and prices of them, and eggs. Gives recipes for the best egg food. Condition Powder, sure remedies for all known diseases of fowls, best plans with illustrations to build cheap and convenient Poultry Houses. Sent to any address for 15 cents, postpaid. Address C. C. SHOEMAKER, Box 86 Freeport, Ill. U. S. A.

When writing our advertisers please mention the KANSAS FARMER.

DINNER IS NOW READY.



**For THE BEST COOKER Made,**

Grinders, Machinery, Wagons, Buggies, Harness, Fencing and farmers' supplies of every description write us.

If we can't save you money we need not trade.

**MACLEAN & WINEGAR**

Corner Eleventh and Santa Fe Sts., Kansas City, Mo.

**CHEAP IRRIGATED LAND**

—IN THE—

**GREAT SAN LUIS VALLEY,**

—ON—

**Easy Terms.**

**CERTAINTY OF CROPS.**

Large Yields of Wheat, Oats, Barley, Potatoes, Alfalfa, Peas, Etc.

**ENORMOUS YIELDS OF VEGETABLES!**

Good Home Markets, Owing to the Nearness to the Mining Camps.

**ARTESIAN WATER EASILY OBTAINED.**

For further description and prices of land address JOHN RICHEY, McPherson, Kas., SIMON MOTZ, Hays City, Kas., or S. M. SCOTT, Emporia, Kas., Agents for Colorado Land and Emigration Company. These lands are located on the D. & R. G. railroad.

**ARTESIAN WELL AT ALAMOSA. CHEAP: LUMBER: AND: FUEL!**



**YOU CAN SAVE** many a fine Sow and Litter of Pigs by using my Forceps. Send for a book on Pigs, FREE. J. N. Reimers, Davenport, Iowa.

**INCUBATORS & BROODERS**  
Brooders only \$5. Best & Cheapest for raising chicks. 401st Premiums 4000 Testimonials. Send for Cat'l'g. G. S. SINGER, Box 2 Cardington, O.

**INCUBATORS** Self-Regulating BROODERS.  
Most Perfect Machines, Best Material and Workmanship. Lowest in Price. Our Thermo-Regulator is as accurate as a Thermometer. Send 4c. for large illus. Catalogue. Tells all about it. High Class Poultry and Eggs. Headquarters for Poultry Supplies. **PERLESS INCUBATOR AND BROODER CO., Quincy, Ill.**

**IT BEATS THEM ALL!**

—THE IMPROVED—

**Kansas Economy Hot Water Incubator**

received first premium at the Kansas State fair at Wichita in 1894. It has hatched 95 per cent. in new hands this season. It is taking the lead everywhere. Prices to suit the times. Illustrated catalogue of incubators, brooders, cook tables and ironing board sent free to any address. **JACOB YOST,** Lock Box 196, Arkansas City, Kas.

**SUCCESSFUL INCUBATOR**  
A catalogue giving full information regarding artificial hatching and brooding, also a treatise on poultry raising sent FREE. Write now to Des Moines Incubator Co., Box 12 Des Moines, Ia.

**SIMPLEX HATCHER & BROODER Combined.**

**THE MOST PERFECT Incubator Made.** Hatches every egg that a hen could hatch; Regulates itself automatically; Reduces the cost of poultry raising to a minimum. Send for Illustrated Catalogue. 160 Egg size \$16.00. **SIMPLEX MAN'G. CO., Quincy, Ill.**

**THE IMPROVED VICTOR INCUBATOR**  
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars free. **GEO. ERTEL & CO., Quincy, Ill.**

**FREE! IT COSTS YOU NOTHING! FREE!**

A Bonus Offer. No Misrepresentation. No Scheme.

No Such Opportunity has ever before been offered.

We shall continue these liberal terms FOR ONLY A SHORT TIME. Cut this out and write to-day.

Warranted 10 Years. 75,000 In Use.

**OXFORD MFG. CO.,**

**FREE S. M. DEPT. P. 611, CHICAGO, ILL. FREE**



**LIGHTNING WELL MACHINERY Works.**  
All kinds of tools. Fortune for the driller by using our  
Adamantine process; can take a core. Perfected Econom-  
ical Artesian Pumping Rises to work by Steam, Air, etc.  
Let us help you. **THE AMERICAN WELL WORKS,**  
Aurora, Ill.; Chicago, Ill.; Dallas, Tex.

### JONES' PIG FORCEPS.

  
By mail, postpaid, \$1.50. Agents wanted. Send for  
circular and terms. D. M. Jones, Wichita, Kas.

### The Farmer's Ready Reference

Or Hand-Book of Diseases of Horses  
and Cattle.  
By S. C. ORR, V. S., is a book that should be in the  
hands of every stock owner. It is plain, practical  
and reliable. Price, by mail, \$1.50.  
Address S. C. ORR, V. S., Manhattan, Kas.

**THE KEYSTONE  
DEHORNER**  
  
Cuts clean on all sides—does not crush. The  
most humane, rapid and durable knife  
made, fully warranted. Highest World's  
Fair Award. Descriptive Circulars Free.  
A. C. BROSIUS, Cochranville, Pa.

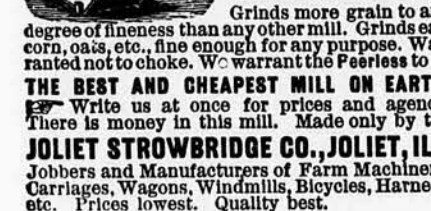
### PERINE'S New Subsoil Plow

  
Can break  
and loosen  
up the soil 24 inches  
deep, which stores up  
all the rainfall in the  
soil just where it is  
most needed.  
Write for Illus-  
trated Catalogue.

Perine's Plow Works, Topeka, Kas.  
When writing advertiser mention FARMER.

**HAVE YOU HEARD**  
How cheap you can  
buy the KAW FEED  
MILL? If not, write  
for price. It will aston-  
ish you. The "Kaw"  
grinds corn and cob,  
shelled corn and all  
kinds of small grain.  
Especially adapted for  
hard and soft wheat.  
AGENTS WANTED.  
Address  
CURRIE WINDMILL CO., Manhattan, Kas.

**THE OLD RELIABLE  
PEERLESS  
FEED  
GRINDERS**  
  
Grinds more grain to any  
degree of fineness than any other mill. Grinds ear-  
corn, oats, etc., fine enough for any purpose. War-  
ranted not to choke. We warrant the Peerless to be  
THE BEST AND CHEAPEST MILL ON EARTH.  
Write us at once for prices and agency.  
There is money in this mill. Made only by the  
JOLIET STROWBRIDGE CO., JOLIET, ILL.  
Jobbers and Manufacturers of Farm Machinery,  
Carriages, Wagons, Windmills, Bicycles, Harness,  
etc. Prices lowest. Quality best.

**ENTIRELY NEW.**  
  
Plowing and Harrowing can be done at one  
operation with CLARK'S CUTAWAY  
REVOLVING PLOW.  
It produces a Perfect Seed Bed. Send for Special  
Circular. Agents wanted in every county.  
THE CUTAWAY HARROW COMPANY,  
Biganum, Conn. New York Office, 18 Cliff Street.

**WHAT YOU  
DON'T KNOW  
ABOUT**

**California**  
is told in a beautifully illustrated book  
entitled "To California and Back." Ask  
G. T. Nicholson, G. P. A., Santa Fe Route,  
Topeka, Kas., for a copy. It is free.  
Personally conducted weekly parties  
leave Chicago every Saturday evening, and  
Kansas City every Sunday noon, for Pa-  
cific Coast, via Santa Fe Route. Special  
agents and porters in attendance. Pull-  
man tourist sleepers are used, furnished  
with all conveniences for comfortable  
traveling. Second-class tickets honored.  
You have been planning that Cali-  
fornia trip for several years. Why  
not go now, and take advantage of  
cheap rates? Santa Fe Route is po-  
sitively the only line with Pullman  
tourist and palace sleepers, Chicago and  
Kansas City to San Francisco and Los  
Angeles, daily without change.

# FREE To Our Subscribers.

A year's subscription to the foremost American  
Household Journal, The Ladies' Home Companion, also the  
Latest and Best Cook Book Published.

THE  
...STANDARD...  
  
**Cook Book**  
FOR  
American Homes.  
What to Cook  
—and—  
How to Cook It.  
320 PAGES, 1,200 RECIPES,  
186 Illustrations.

The Recipes are from Over 200 Practical and Experienced Housekeepers,  
Besides Many

## Celebrated Chefs and Prominent Ladies

Who are Recognized as Authority in the Culinary Art.

We can give only a few of these names as follows:  
Paul Resal, Chef of White House, Washington, D. C.  
Louis C. Zerega, Chef Hotel Ponce de Leon, St. Augustine, Fla.  
Gustav Beraud, Chef Calumet Club, Chicago.  
A. J. Pillauet, Chef West Hotel, Minneapolis.  
A. Gallier, Chef Hotel Brunswick, New York.  
Mrs. S. T. Rorer, Principal Philadelphia Cooking School.  
Mrs. Harriott T. Ward, Special Teacher of Cookery, Boston.  
Miss Cornelia Campbell Bedford, Supt. New York Cooking School.  
And 200 others whose names are well known, and who represent nearly every  
state in the Union.

**The Standard** Embodies all the best features found in other  
GOOD cook books, and in addition contains  
much valuable matter not found in others, and  
all eminently practical for the average housekeeper; being especially designed  
for those homes that love good cooking at a moderate expense. It will at once  
be noticed that there is an entire absence of those technical terms which render  
the vast majority of cook books of no practical value.

## Some of the Special Features Are:

Tabulated Form for the Recipes, Making Mistakes Nearly Impossi-  
ble; Improved Arrangement of the Tables of Weights and  
Measures; A List of Utensils Necessary in Cooking, with  
Directions for their Use and Care—a Feature Espe-  
cially Valuable for Beginners; Daily Bills of  
Fare; Copious Illustrations, both of Arti-  
cles of Food and Best Utensils to  
Use in the Cooking of Them.

ALL THESE THINGS COMBINE TO MAKE  
**THE STANDARD THE BEST.**

**LADIES HOME COMPANION** Is a paper for women, by women  
and its departments are edited with  
rare skill and attractiveness by women whose names are familiar in every household.  
The quality of illustrations, merit of its fiction, practicability of the articles on house-  
keeping, care of children, hints on inexpensive and tasteful home adornment and  
fashion changes, have given this standard home journal the enormous circulation of  
140,000 copies each issue. It is published twice a month, each issue containing 20 to 28  
large pages, at \$1 per year.

## DOLLARS DO DOUBLE DUTY.

Kansas Farmer.	\$1.00	<b>All 3 for \$1.00.</b>
Ladies' Home Companion,	1.00	
Standard Cook Book,	.50	
	\$2.50	

This offer is made for two or more subscriptions, at one time, of one dollar each.  
In order to secure the benefit of this order send your own dollar to this office  
with one or more other subscriptions at one dollar each and the KANSAS  
FARMER, Ladies' Home Companion and the Cook Book will be sent to each one;  
or, if you cannot send two subscriptions at same time, send your own and \$1.30  
and the above combination will be sent to your address, and when you get the  
extra one you can send the balance for the two, viz., 70 cents.

Address **KANSAS FARMER CO., Topeka, Kas.**



The cruel knife and burning  
plaster must go.  
**CANCER**  
Cured with the "Balm of Col-  
umbian Oil." Thousands  
of testimonials from people  
cured. Address  
Dr. Castle & Co., Props.  
S. E. Cor. 8th & Wyandotte Sts.,  
KANSAS CITY, MO.

Refitted and  
renewed. John B. Campbell,  
R. G. Kessler, Managers.

**Armourdale Hotel,**  
Kansas City, Kansas.  
\$1 and \$1.25 per day. Five minutes ride on  
electric cars from Union Stock Yards.

## FLORIDA.

Through Sleeping Cars  
Kansas City to  
Jacksonville.

Commencing Sunday, November 18,  
1894, the MEMPHIS ROUTE, Kansas  
City, Fort Scott & Memphis Railroad,  
will inaugurate a through sleeping car  
line, Kansas City to Jacksonville, via  
Memphis, Birmingham, Atlanta and  
Macon, arriving at Jacksonville at 9:45  
a. m., making close connections there  
for all points in South Florida. The  
cars in this line will be strictly first-  
class in all their appointments and will  
run every day in the week, leaving  
Kansas City at 10:30 a. m.  
For rates and full information, ad-  
dress J. E. LOCKWOOD, G. P. A.,  
Kansas City, Mo.

## THE GREAT ROCK ISLAND RY.

THE FAVORITE ROUTE TO THE  
East, West, North, South.

Through cars to Chicago, St. Louis, Colorado,  
Texas and California.

Half Rates to Texas Points!  
LOW RATES TO ALL POINTS.

Especially California, Texas and Southeast-  
ern Points. If you are going to the Midwinter  
Fair at San Francisco, if you are going to Texas,  
if you are going East on business or pleasure—in  
fact, if you intend to do any traveling, be sure to  
consult one of the agents of the

## Great Rock Island System

JOHN SEBASTIAN,  
General Ticket and Passenger Agent, CHICAGO.  
T. J. ANDERSON,  
Assistant Gen'l Ticket and Pass. Agent, TOPEKA.  
H. O. GARVEY,  
City Ticket and Passenger Agent,  
601 Kansas Ave., TOPEKA, KAS.

**Burlington  
Route.**

SOLID THROUGH TRAINS  
FROM  
KANSAS CITY TO ST. JOSEPH

—TO—  
ST. LOUIS, CHICAGO,  
OMAHA, PEORIA.  
ST. PAUL AND MINNEAPOLIS

WITH  
Dining Cars  
Vestibuled Drawing Room Sleeping Car  
Reclining Chair Cars (Seats Free).

ONLY ONE CHANGE OF CARS  
TO  
THE ATLANTIC COAST

THE BEST LINE FOR  
NEW YORK, BOSTON,  
Baltimore, Washington,  
Philadelphia, Cincinnati,  
Niagara Falls, Pittsburgh,  
AND EASTERN POINTS.

For full information, address  
H. C. ORR,  
Ass't Gen'l Passenger Agent, Kansas City, Mo.

**TANSY PILLS!**  
ALL  
DRUG  
STORES  
SAFE AND SURE. SEND 4c. FOR "WOMAN'S SAFE  
GUARD." WILCOX SPECIFIC CO., PHILA., PA.



Clover, Blue Grass, Timothy, Millet, Cane & Onion sets. Bale Ties, Planter, Jr. & Garden Tools. 1895 Catalogue Free.

**SEEDS TRUMBULL SEED CO.**  
1426 St. Louis Ave.,  
KANSAS CITY, MISSOURI.

## BREEDERS' DIRECTORY.

(Continued from page 1.)

### SWINE.

**J. R. KILLOUGH & SONS,**  
Richmond, Kansas,  
Breeder of  
**POLAND-CHINA SWINE**  
The very best strains. Nothing but first-class stock will be shipped to any. Come and see us or write.

### TOWER HILL HERD PEDIGREED POLAND-CHINAS.

**B. R. ADAMSON, Prop., Ft. Scott, Kas.**  
25 highly-bred brood sows of best strains, headed by Black Dandy 8809 S. Black Stop 10550 S. and Joker Wilkes 12882 S. About 100 selected individuals sold this season. 25 youngsters coming on now for choice. Write or come and visit my herd.

**E. E. AXLINE,**  
OAK GROVE, MO.,  
(Jackson Co.)  
**Poland - Chinas.**  
Breeder and shipper pure-bred registered stock. Dugan 10213 S. and Western Wilkes (Vol. 9) head the herd. Write or come.

### STANDARD POLAND-CHINA HERD.

**CHAS. A. CANNON, Proprietor,**  
HARRISONVILLE, CASS COUNTY, MISSOURI.  
Breeder and shipper of registered Poland-China swine of the best strains. Herd headed by Chow Chow 9903 S., assisted by a Black U. S. son of Imitation 27185 O., also a son of Tecumseh Jr. 10207 O. 220 head in herd. Young boars and gilts yet on farm. Write or come and visit me.

**R. S. COOK**  
Wichita, Kas.,  
Breeder of  
**Poland - Chinas.**  
Won seven prizes at World's Fair—more than any single breeder west of Ohio.

### SUNNY SLOPE FARM, Emporia, Kas.

200 head of Poland-Chinas, headed by LONGFELLOW 29985 O., who has the best Columbian record of any boar west of the Mississippi. 50 head of Poland-China gilts sired by Longfellow, bred to the following noted boars: J. H. Sanders, Jr., by J. H. Sanders 27119 O., dam Graceful F. 33408 O.; Hadley, Jr., sired by Hadley 27505 O., dam Samboline 8th 59852 O.; Sir Charles Corwin, by Latest Fashion 27396 O., dam Josie Wilkes 1st 60198 O. Combining the blood of Black U. S., Wilkes and Tecumseh, combining the leading and show combination and fashionable blood now sought for by breeders.

100 Berkshires, headed by the well-known boar. Major Lee 91138. We have twenty-five gilts, bred from him, to General Lee, of Gentry breeding, and also to Royal Peerless the Great.

200 head of fashionably-bred Herefords. Why not come to the fountain-head for a brood sow? Call on or address

**H. L. LEIBFRIED, Manager.**

### DOGS.

**HIGHLAND KENNELS, TOPEKA, KAS.**—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

### VETERINARY SURGEON.

**DR. U. B. MCCURDY, Veterinary Surgeon.** Graduate Ontario Veterinary College, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

### Kansas Redeemed!

As a result business is "picking up" wonderfully and prices are looking better in all lines. In Farm Property there will be no exception. Prices that now range are exceeding low—they are bound to advance, and lucky is he who gets a farm in this section of Kansas between this and spring. I have hundreds of way down bargains. First come, first served. You can better yourself now and have money left for other use. Write me now or come and see. Car fare refunded to all purchasers. Address **WALTER LATIMER, Garnett, Kansas.**

### Kansas Tannery.

ESTABLISHED IN 1889.

Does a general tanning business, including robes, rugs, etc. Tanning Galloway hides for robes a specialty. Fir t-class work, reasonable prices. All kinds of leather in stock—best quality. Have you any oak bark? Good prices paid for it. Write me.

**M. C. BYRD, Lawrence, Kas.**

**TRUSSES on 30 Days Trial**  
Easy, durable and cheap. A radical cure effected. Send for sealed catalogue. **EUGLESTON TRUSS CO., Masonic Temple, Chicago, Ill.**

### HORSESMEN!

Try Dr. Orr's Veterinary Remedies.

Tonic Cough Powder, for cough, distemper, loss appetite, etc. Pound, by mail, 50 cents.  
Tonic Worm Powder, for expelling worms and oning up the system. Pound, by mail, 50 cents.  
Ready Blister, for curb, splint, swellings and all parts where a blister is indicated. By mail, 50 cents.  
Magie Healing Powder, for sore necks, collar galls, etc. By mail, 25 cents.  
Remit by postal note to S. C. ORR, V. S., Manhattan, Kas.

### TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.  
Special:—All orders received for this column from subscribers, for a limited time, will be accepted on one-half the above rates, cash with order. It will pay. Try it!

**WE CAN FURNISH CORN, OATS, MILL FEED,** bran, flour, ground wheat or feed wheat in car lots. Write or wire. Hodges & Seymour, Wichita, Kas. Mention Kansas Farmer.

**WANTED—Millet, cane, Kaffir and Jerusalem corn.** Send samples. Kansas City Grain and Seed Co.

**IRRIGATION PUMPS.**—For prices of irrigation pumps used by the editor of KANSAS FARMER write to Prescott & Co., Topeka, Kas.

**WE MAKE A GOOD FARMER'S SPRING WAGON,** two lay backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

**FARM LOANS**—I have arrangements to negotiate loans with funds of a safe company at a low rate of interest on long time. Correspondence solicited at 110 West Sixth Ave., Topeka, Kas. Milo Norton, Agent.

**WANTED—To trade a \$50 scholarship in Pond's** Business college for a good milch cow. W. B. Roby, 318 West Eighth St., Topeka.

**LINSEED OIL MEAL (OLD PROCESS) FOR** sale, car lots and less. Send for prices. Kansas City Grain and Seed Co.

**YOUNG BULLS** for sale. Short-horns and Herefords. Prices reasonable. Address Peter Sim, Wakarusa, Shawnee county, Kas.

**WANTED—Car-load of 1894 alfalfa, German mil-** let, cane and Evergreen broomcorn seed. Address Geo. A. Arnold, Box 148, Kearney, Neb.

**CHOICE BARRED AND WHITE PLYMOUTH** Rock cockerels; also White Holland turkeys. Mrs. E. P. Mason, Belle Plaine, Kas.

**DETECTIVES**—We want a reliable man in every locality to act as private detective under instructions. Experience not necessary. Send for particulars. American Detective Agency, Indianapolis, Ind.

**50 LIGHT BRAHMA COCKERELS**—Felch strain, that I will sell for \$1 each if taken soon. J. E. George, Burlington, Ossage Co., Kas.

**CLOSING OUT**—Entire stock of Hamburgs, incubators, brooders, bone-mill, clover-cutter, etc., on account of death of wife. J. P. Lucas, Topeka, Kas.

**LAND IN THE BRAZOS VALLEY, NEAR HOUSTON,** Texas, is now being offered in small tracts at \$10 and \$12.50 per acre, one-eight heath, balance seven years, 7 per cent. Do not rent when you can buy on such liberal terms. Reduced railroad fare to parties wanting to see this land. For full particulars write to John G. Howard, Topeka, Kas.

**WANTED—Yellow and white millo maize seed** by F. Barteldes & Co., Lawrence, Kas.

**WANTED—Sale bills, horse bills, catalogues and** other printing. A specialty at the Mail Job printing rooms, 900 North Kansas Ave., North Topeka.

**WANTED—The names of folks who like honey** and want to buy it direct from the bee-keeper, where they can get it cheap and may know it is genuine. Oliver Foster, the Bee Man, of Las Animas, Colo.

**SHORT-HORN BULLS FOR SALE**—Sired by a son of Imp. Thistleup. Address M. Waltemire, Fountain, Kas. Station Carbondale.

**WANTED—Farmers and others as agents to sell** Kelpess Shaft Supporter and Anti-Katiller. Sells to every owner of a rig. Big profits. Enclose 2-cent stamp for circular. A. J. Spaulding & Co., Kansas City, Mo.

**FOR EXCHANGE**—Equity in 160 acres of good farm smooth Graham county, Kansas, land for Short-horn cattle. Land ten miles from county seat on Union Pacific railroad. For further information address Box 88, Rubens, Kas.

**FOR SALE**—We have farms for sale in almost every county in eastern Kansas, and south-west Missouri. It will pay you to investigate our "cash rent plan" of selling farms; we can give you better terms than anybody; farms improved; possession soon; write at once; farms going fast. J. H. Brady, Topeka, Kas.

**ORDER OUR MISSOURI VALLEY GROWN SEED** corn. Best matured; plenty rain; full of oil and vitality; selected, cleaned, tipped. Three-bushel, ten-ounce bushel sacks, straight white or yellow. \$2.25 per sack, f. o. b., Kansas City. Kansas City Grain and Seed Co.

**WANTED—Active salesmen to handle our Kan-** sas home-grown nursery stock. Salary or commission. Good men can make good money. L. H. Corse, Lawrence, Kas.

**A FINE LOT OF RED KAFFIR CORN SEED**—The best, surest, dry year crop that grows, \$1 per bushel, sack included. N. P. Wiley, Pretty Prairie, Reno Co., Kas.

**SWEET POTATOES**—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

**WHEN YOU GO TO TOPEKA STOP AT THE** St. Nicholas Hotel, first door north of post-office. Be opened and newly furnished throughout. Good meals, 15 cents; nicely furnished rooms, 25 and 50 cents. A. T. Pigg, proprietor.

**CHEAP FOR SIXTY DAYS**—Great big Light Brahmas and beautiful Black Langshans. Wm. Plummer, Ossage City, Kas.

**SWEET POTATOES**—Sent out to be sprouted on shares. No experience required. Directions for sprouting free. T. J. Skinner, Columbus, Kas.

**WANTED—A man in each large city of Kansas** to sell genuine honey direct from the producer to the consumer. Good employment. Address Oliver Foster, the Bee Man, of Las Animas, Colo.

**WANTED MILLET SEEDS J. G. Peppard**  
AND CANE 1400-2 Union Avenue,  
KANSAS CITY, MO.

**SEEDS. ALFALFA SEED A SPECIALTY.**  
Cane and Millet Seeds, Kaffir Corn and Jerusalem Corn. Seed Wheat and Oats. All crops of 1894. Write for "How to Sow Alfalfa," and prices on seeds.  
Garden City, Kansas.

McBETH & KINNISON,

**KANSAS SEED HOUSE.**

EVERYTHING IN THE SEED LINE.

Our Specialties: Seed Corn, Tree Seeds, Onion Seeds and Sets, Alfalfa, Sacilline, Lathyrus Silvestris, Sandvetch, rumpur, Kaffir and Jerusalem Corn, and other new forage plants for dry and arid countries. NEW CATALOGUE MAILED FREE ON APPLICATION.

**F. BARTELDES & CO., Lawrence, Kas.**

## COMBINATION SALE!

Over Eighty Head of Poland-China Brood Sows,

bred to four royally-bred herd boars. Also a few choice SUMMER BOARS AND GILTS. From the herds of D. W. Evans and J. A. Worley. To be held at the farm of D. W. Evans, one-fourth mile west of Fairview, Kas., Thursday, February 14, 1895.

Sale will be held in warm place, with seating capacity for all. This offering will consist of a few aged sows, the balance yearlings past and gilt that are richly bred in the most fashionable strains of the day, and are bred to the following royally-bred boars: Swi Tecumseh 11929, by the great prize winner, L's Tecumseh 11413; Billy Wilkes 9109 by George Wilkes; Anxiety 20251 A., by Tecumseh Butler 17949 A.; and Combination U. S. 18408, by Lord Fauntleroy 11314. Comment on their breeding lines is unnecessary, and they have all proven themselves grand sires in the breeding ring.

Free hotel accommodations at Fairview House. Lunch at noon. Sale at 12 m. sharp.

For further information in regard to the breeding of the herds and terms of sale, write to

**D. W. EVANS, Fairview, Kas.**

**COL. JAS. W. SPARKS,**

Auctioneer.

or **J. A. WORLEY, Sabetha, Kas.**

## CLEARANCE SALE

OF

**One Hundred Head of Pedigreed Poland-Chinas,**

on Rosedale Stock Farm,

Robinson, Brown County, Kas., Thursday, February 28, 1895.

When I will offer at public auction 100 head, consisting of all ages, a major portion of which are sows bred to the great Onward Wilkes 8861 S., he by George Wilkes, the \$750 sire; and the highly-bred boar, Black U. S. Wilkes, he by Guy Wilkes 2d and out of Black U. S. Blaine; also the fine young boar by General Wilkes and out of Agnes. About 80 sows and gilts that have been bred to these boars, about forty of which are 1 year old and over, and the balance of spring and summer 1894 farrow. Among the sows are Missouri Star 6th 18610 S., Queen of Rosedale 18611 S., Lady Gip 18612 S., Equal 18609 S., Black Daisy 24083 S., Kate Miller 26083 S., Sally 26084 S., Dowell's Choice 26085 S., and other good ones. Onward Wilkes 8861 S. will be in the sale. For further particulars write for catalogue. Sale will be under cover. The usual sale-day lunch at 11 o'clock a. m.

**JOHN A. DOWELL,**

**COL. F. M. WOODS, Auctioneer.**

**Robinson, Brown Co., Kas.**

### TWO-CENT COLUMN—CONTINUED.

**FOR SALE**—Registered yearling Holstein and Jersey bulls. Prices reasonable. William Brown, Lawrence, Kas.

**INFORMATION ABOUT SOUTH FLORIDA FUR-** nished free. J. H. Tatum & Co., Bartow, Fla.

**WANTED—A registered Jersey bull, not over 18** months old, solid color. Must be from good milking family. John Whitworth, Emporia, Kas.

**DEAD—M. H. Alberty, Cherokee, Kas., has a fine** lot of young Poland-China and Duroc-Jersey pigs, from 3 to 6 months old, and must sell to make room for spring litters. Pedigrees furnished.

**EGGS—Bronze Turkeys, Single-combed Brown** Leghorns, Rock and Leghorn cross. George Topping, Cedar Point, Chase county, Kas.

**THOROUGHBRED POLAND CHINA HOGS FOR** sale. Darkness and Wilkes strains. Sows bred to Ideal U. S., he by Ideal Black U. S. Wm. Maguire, Haven, Kas.

**STRAYS**—Taken up by Mr. Newton, at fair grounds, two colts—a brown filly and a gray horse colt.

**WANTED—Buyers for Large English Berkshires.** One hundred pure-bred pigs, farrowed in March and April, are offered for sale at from \$10 to \$15 each. Farm two miles west of city. Riverside Stock Farm, North Topeka, Kas.

**SUNNYSIDE—YAKIMA VALLEY.**—Irrigated lands. Produce apples, pears, prunes, peaches, hops, alfalfa. Worth \$50 to \$600 per acre. "Twenty acres enough." For map, prices, particulars, write F. H. Hagerty, Sunnyside, Washington.

**YORKSHIRES**—The grass hogs. Langshans, the winter layers. Leghorns, the everlasting layers. Prize stock. James Burton, Jamestown, Kas.

**FARM FOR SALE OR EXCHANGE**—640 acres in Morris county; first class farm at bargain; all good buildings, no shells; house with ten rooms, bay window, good cellar, and other buildings, all new; all fenced and cross-fenced; some over hundred acres under cultivation; windmill, large tank, a never-failing well, cistern, young orchard, all smooth land; one mile from town, four railroads, car shops, elevators, mill, a good business town, all kinds of schools and churches; school on one corner, church on the other, but not on farm. Only sell because too much land; \$20 per acre. For exchange, not farther west than Morris county. For particulars write to proprietor, Box 151, Herington, Kas.

**ALFALFA SEED.** Fresh stock. W. P. Haywood, Lakin, Kas.

**KANSAS CITY GRAIN AND SEED CO.**

Buy, sell, grain, millstuff, seed grain, millet, cane, Kaffir corn, alfalfa, clover, timothy, flaxseed, popcorn. Kansas City, Mo.

### 5—Choice Cruickshank Bulls—5

We have or sale five choice Cruickshank bulls, 10 to 18 months old, suitable to use in any Short-horn herd. Prices low, quality good. Inquire of

**W. A. HARRIS & SON, Linwood, Kas.**

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.

## BLACK AND WHITE LANGSHANS!

The Great Winter Layers.

Chicks and Eggs for Sale.

**MRS. L. M. COZAD,**

LaCygne, Linn Co., Kas.

## Irrigated Lands for Lease!

Several hundred acres of land, mostly among young orchards, located in Greenwood county, Kansas, for rent for the current year, with a full supply of water for irrigation, to be cultivated in garden crops such as will bear railroad transportation to market. These lands will be leased in such quantities as parties can properly cultivate, large or small. A portion is admirably adapted for celery growing, and all have been in cultivation and are in good share. For full information apply to

**S. A. Martin & Co., Agts., Eureka, Kas.**

or Geo. M. Munger, Owner, Eureka, Kas.

## 75,000 ASPARAGUS ROOTS.

50,000 one-year White Columbian, \$4 per 1,000.

25,000 two-year Conover's Colossal, \$3 per 1,000, f. o. b.

Send for catalogue.

**Wm. PLASKET & SON,**

Douglas County Nursery. Lawrence, Kas.

## Farm for Sale—160 Acres!

FIRST-CLASS FARM AT A BARGAIN.

All good buildings. House with six rooms, with large cellar. Two barns, one of them entirely new and cost \$1,200. Good bearing orchard of 150 apple trees and other fruit. Out buildings all in first-class condition. Two good, never-failing wells. One new windmill. Good fences of hedge, stone and wire on all sides of the farm, and also cross fences. Good shelter for stock on creek bottom.

I will sell this farm at less than cost. Write me for further particulars, or, better still, come and see the farm, which is near Carbondale and within a half mile of school house.

**LEONARD HEISEL,**

Box 11, Carbondale, Kas.

## Farmers, Spay Your Sows

For fall fattening. Also your Nannies, Ewes and Gip Dogs, with Howsley's Spaying Mixture. Easily used, quick, absolutely certain and safe. Price, \$3 per bottle; \$2 half bottle. One bottle spays one hundred head. Write for testimonials and particulars.

**THE HOWSLEY SPAYING CO.,**

Kansas City, Mo., or New Orleans, La.

## Fourth Grand Semi-Annual Sale of Pedigreed Poland-China Swine,

At Marion, Marion County, Kansas, Thursday, February 7, 1895.

When a reduction draft of seventy-two head will be offered, without reserve or by-bid, to the highest bidder, consisting of about 30 bred sows and pigs of both sexes of summer and fall of 1894 farrow. The sows offered are by Sensation 25897, by One Price; El Captain 10006, by Chief Tecumseh 2d; Young Model, by Admiral Culp; Longfellow 12173 and other high-class sires. The sow offerings have been bred to Wren's Medium 12887, by Happy Medium 8397 and to Corwin White Face 9924, a half brother to J. H. Sanders, that won first and sweepstakes at World's Fair. A major portion of the youngsters are by the sire-bred Tecumseh boar, Royal Short Stop 10887, and by Kansas King 8911. Send for catalogue giving full and complete description. Terms: Nine months' credit with 10 per cent. fr. m. date; 5 per cent. off for cash.

Any buyer of \$200 worth will be allowed a rebate of transportation round trip; for \$100 worth transportation one way will be allowed.

**COL. S. A. SAWYER, Auctioneer.**

**W. H. WREN, Proprietor, Marion, Kas.**